Quick-Start Guide

INSTEON™ Thermostat Adapter, Totaline™ / Venstar™

Model: #2441V

Introduction

The INSTEON Thermostat Adapter adds remote control and monitoring to 3 compatible models of Totaline™ / Venstar™ brand thermostats. It simply plugs into the bottom of compatible thermostats and communicates via INSTEON RF giving you wireless remote control and monitoring from anywhere in your home, or the world.
The 3 compatible models are:

- 1-Day Programmable Venstar Thermostat (30410A)
- 7-Day Programmable Venstar Thermostat (30411A)
- 7-Day Programmable, Dual-Fuel Venstar Thermostat (30412A)

Note: To use the above mentioned thermostats, make sure your install location's wiring has 5 wires or check with a local installer.

INSTEON Thermostat Adapter

Installation

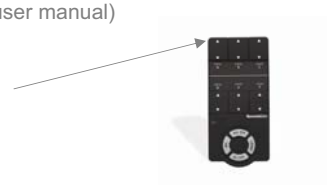
1) Simply plug the INSTEON Thermostat Adapter into the jack on the bottom of your thermostat
   Green LED will turn on

Un-Install

1) Open the front cover of the thermostat by gently pulling the right edge of the cover towards you
2) While pressing firmly on the small round button (center, bottom of thermostat) pull down gently on the INSTEON Thermostat Adapter
   INSTEON Thermostat Adapter will disconnect from the thermostat

Adding your Thermostat Adapter to a Scene on an INSTEON Compatible Controller

For example, let's say you would like to remotely control your thermostat to 73 degrees, heat mode from the comfort and convenience of your couch, using the Scene A button on your RemoteLinc (If you want to use another INSTEON Compatible Controller, see its user manual)
Note: Linking your Adapter to a scene allows your thermostat to go to a chosen setting.



Here, you will link your Scene A button to "recall" both the setpoints and mode of the thermostat.

1) Tap the mode button on your thermostat until the mode indicated is heat
2) Tap the up and/or down arrows on your thermostat until the temperature set point is 73 degrees
3) Press & hold the top of the Scene A button on your RemoteLinc (for about 10 seconds) until it beeps
   LED will start blinking (Press & hold for 10 seconds works for just about every INSTEON-compatible Controller; please check the controller's owner's manual if you need help)
4) Press & hold the button on the INSTEON Thermostat Adapter (for about 5 seconds)
   LCD display on your thermostat will briefly display all its characters, then return to normal
   INSTEON Adapter's LED will blink off faintly, then return to steady on
   RemoteLinc will beep and its LED will stop blinking
5) Tap the mode button on your thermostat (this will temporarily change the operating mode to allow you to test your remote control)
   Your thermostat's mode will change to cool
6) Now to test your new link, tap the Scene A (up arrow) on your RemoteLinc
   Your thermostat should return to heat mode with a 73-degree set point
7) Repeat steps 1 through 6 for as many scenes and setpoints on your INSTEON-Compatible Controller as you wish.

Note: Sending an Off command will not change the mode or setpoints of the thermostat. These commands are ignored to minimize unintended results.
Note: Different set points can be linked to different buttons should you need more flexibility.

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Removing from a Scene

1) Put your Controller into “Delete from Scene” mode (usually “Unlinking” mode (two 10-second press & holds) – please check its Owner’s Manual if you need help)
2) Press & hold the INSTEON Thermostat Adapter’s button for about 5 seconds
   The LCD display on your thermostat will briefly display all its characters, then return to normal
   The INSTEON Adapter’s LED will blink off faintly, then return to steady on

Factory Reset

1) Unplug the INSTEON Thermostat Adapter from your thermostat (see Un-Install section on page 1 for details)
2) Press & hold the button on the INSTEON Thermostat Adapter
3) While continuing to hold the button, plug the INSTEON Thermostat Adapter back into your thermostat
4) Continue to hold the button for approximately 5 seconds
   All user settings will be erased and the unit restored to its factory settings

Advanced Operations

Using software, you will be able to integrate the automation of your thermostat with the wide array of INSTEON compatible products saving you time and energy. For example, applications can include having an email sent to you if the temperature goes above or below any chosen set points, have a “goodbye” scene automatically set back your thermostat, etc. – the applications are almost endless. Check with your favorite INSTEON Compatible Software for their latest support for this product.

Specifications

INSTEON communications	RF
INSTEON Controller functionality	Not supported
INSTEON Responder functionality	Supported
INSTEON message repeating	Supported, always on
Mode control	Heat, Cool, Auto, OFF
Fan control	On, Auto
Degree format	Fahrenheit (Celsius is not available)
Maximum number of INSTEON scenes / links	417
All Linking	Supported (10 sec set button push n hold)
Unlink	Supported (10 seconds press n hold, twice)
Heat set point	Supports all set points of Thermostat
Cool set point	Supports all set points of Thermostat
Temperature status request	Supported
Humidity status request	Supported
Mode status request	Supported
Fan status request	Supported
X10	Not supported
Dimensions	2.89” W x 1.75” H x 0.58” D
LED	Green
Interconnect type	Male, RJ10 4 conductor (aka RJ22)
Input power	5VDC, 30 ma max (supplied by thermostat)
Installation	Indoor use only
Approvals	FCC, Industry Canada
Warranty	2 years

FCC Compliance Statement

This device complies with FCC Rules Part 15. Operation is subject to two conditions:

(1) This device may not cause harmful interference, and

(2) this device must accept any interference that may be received or that may cause undesired operation. The digital circuitry of this device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio and television reception. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause such interference, which can be verified by turning the device off and on, the user is encouraged to eliminate the interference by one or more of the following measures:

- Re-orient or re-locate the receiving antenna of the device experiencing the interference.
- Increase the distance between this device and the receiver.
- Connect the device to an AC outlet on a circuit different from the one that supplies power to the receiver.
- Consult the dealer or an experienced radio/TV technician.

WARNING! Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For **HELP**, call our friendly tech support @ 866-243-8018

SmartLabs Limited Warranty – SmartLabs warrants to the original consumer of this product that, for a period of two years from the date of purchase, this product will be free from defects in material and workmanship and will perform in substantial conformity to the description of the product in the owner's manual and/or quick start guide. This warranty shall not apply to defects or errors caused by misuse or neglect. © Copyright 2008 SmartLabs, 16542 Millikan Ave., Irvine, CA 92606-5027 – 866-243-8018 www.smartlabsinc.com

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VENSTAR®

RESIDENTIAL
THERMOSTAT
T1700

DIGITAL THERMOSTAT

1-DAY PROGRAMMABLE UP TO 2-HEAT & 1-COOL

HEAT COOL & HEAT PUMP

CONFIGURABLE IN SETUP:
- Auto or Manual changeover
- Programmable or Non-Programmable

- Control up to 2 Heat & 1 Cool Stages
- Backlit Display & Button Legends
- Aux Heat Indicator
- Outdoor Sensor Ready
- Accepts EZ Programmer™
- Accepts Optional IR Remote Control
- Accepts Comfort Call™ Phone Control Accessory

- Use with most Air Conditioning & Heating Systems including: 1 or 2 Stage Electric Cooling & 3 Stage Gas Heating, Heat Pump, Electric or Hydronic Heat.

INSTALLATION INSTRUCTIONS

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⚠ CAUTION

Follow the Installation Instructions before proceeding. Set the thermostat mode to "OFF" prior to changing settings in setup or restoring Factory Defaults.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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Thermostat T1700
FC Tested to Comply with FCC Standards
FOR HOME OR OFFICE USE

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Remove & Replace the Old Thermostat	2
Wire Connections	3
Sample Wiring Diagrams	4
Test Operation	5
Calibrating the Thermostat Sensors	6
TroubleShooting	7

SECTION 1
Preparation

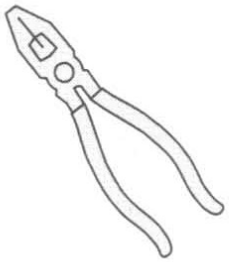
VENSTAR®

1

Proper installation of the thermostat will be accomplished by following these step by step instructions. If you are unsure about any of these steps, call a qualified technician for assistance.

Assemble tools

Flat Blade Screwdriver



Wire cutter & Stripper

Make sure your Heater/Air Conditioner is working properly before beginning installation of the thermostat.

Carefully unpack the thermostat. Save the screws, bracket, and instructions.

Turn off the power to the Heating/Air Conditioning system at the main fuse panel. Most residential systems have a separate breaker for disconnecting power to the furnace.

SECTION 2
Remove & Replace the Old Thermostat

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Remove the cover of the old thermostat. If it does not come off easily check for screws.

Loosen the screws holding the thermostat base or subbase to the wall, and lift away.

Disconnect the wires from the old thermostat. Tape the ends of the wires as you disconnect them, and mark them with the letter of the terminal for easy reconnection to the new thermostat.

Keep the old thermostat for reference purposes, until your new thermostat is functioning properly.

SECTION 3
Wire Connections

VENSTAR®

3

If the terminal designations on your old thermostat do not match those on the new thermostat, ***refer to the chart below, or the wiring diagrams that follow.***

Wire from the old thermostat terminal marked	Function	Install on the new thermostat connector marked
G or F	Fan	G
Y1, Y or C	Cooling	Y1
W1, W or H	Heating	W1/O/B
Rh, R, M, Vr, A	Power	R
C	Common	C
O/B	Rev. Valve	W1/O/B*
W2	2nd Stage Heat	W2
RS+5	Remote Sensor +5vdc	RS+5**
RSGND	Remote Sensor Ground	RSGND**
RS2	Remote Sensor Signal #2	RS2**

* O/B is used if your system is a Heat Pump.
** For instructions on connecting these terminals see page 4.6

Section 4 Contents:

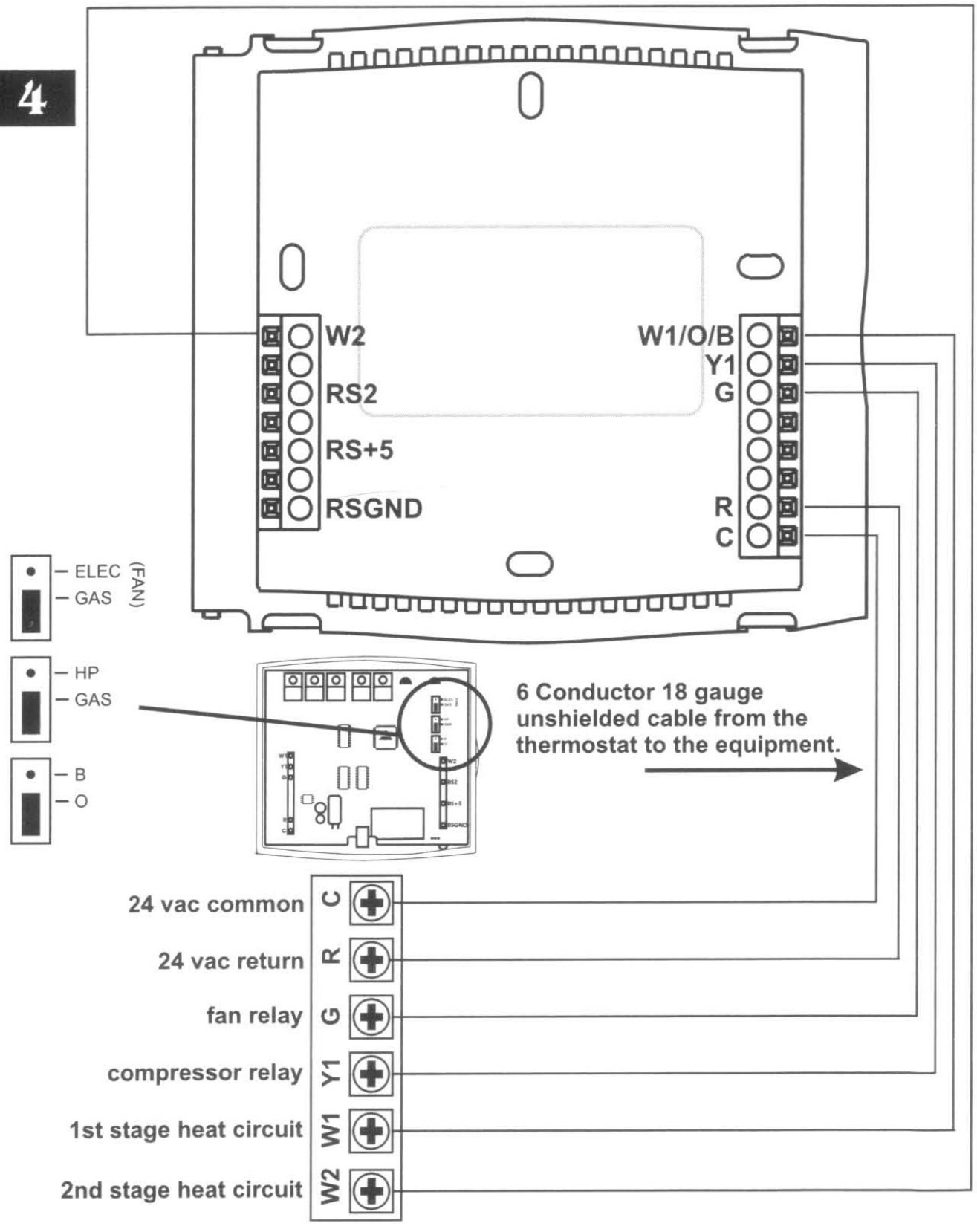
- *HVAC Equipment Wiring.....4.2*
- *Installing the Outdoor Sensor....4.6*

6 Wire, 1 Stage Cooling, 1 Stage Heat

Residential & Commercial 1 Stage Cooling, with 1st stage Gas Heat

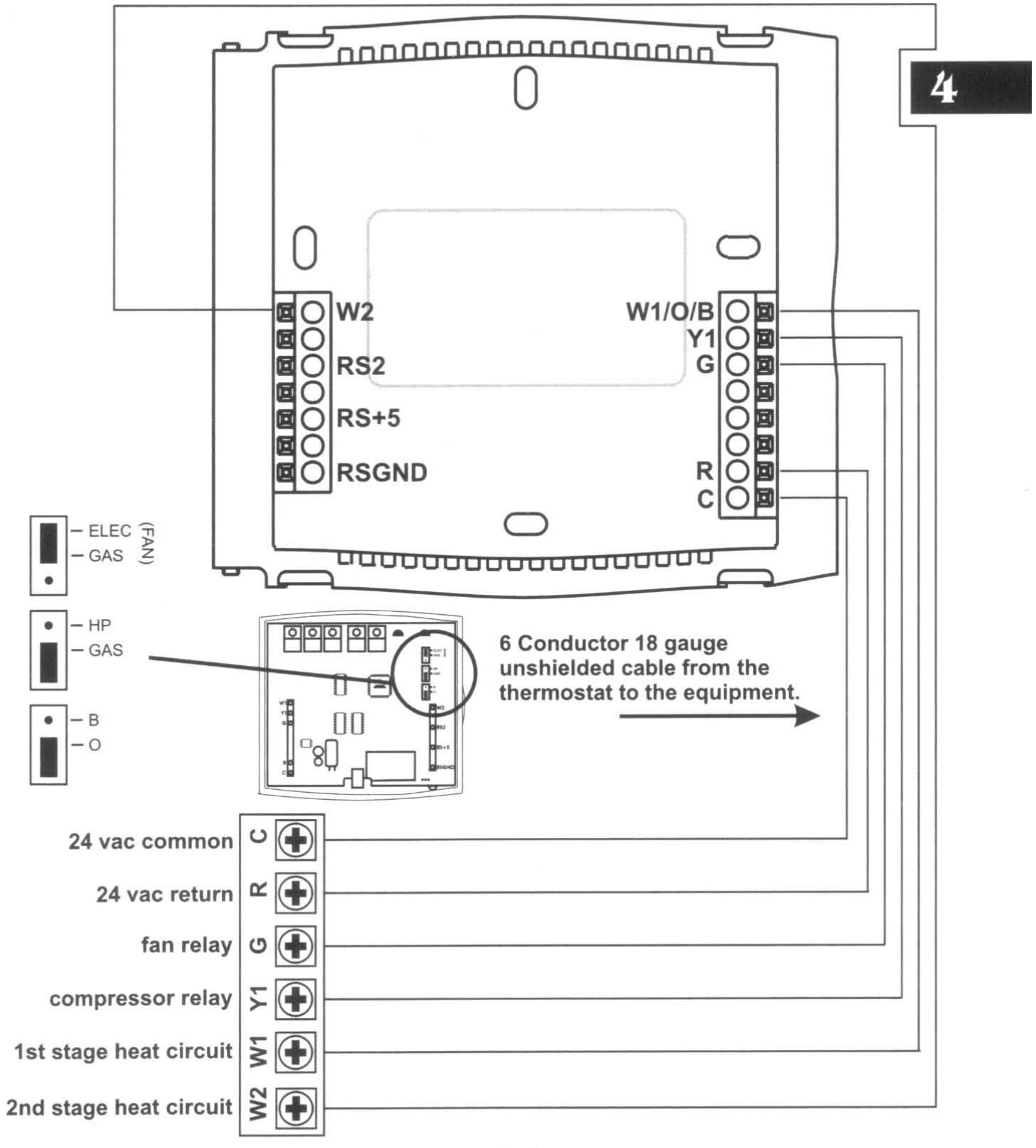
OR

Commercial Heat Pump 1 Stage Cooling with 2 Stage Heat



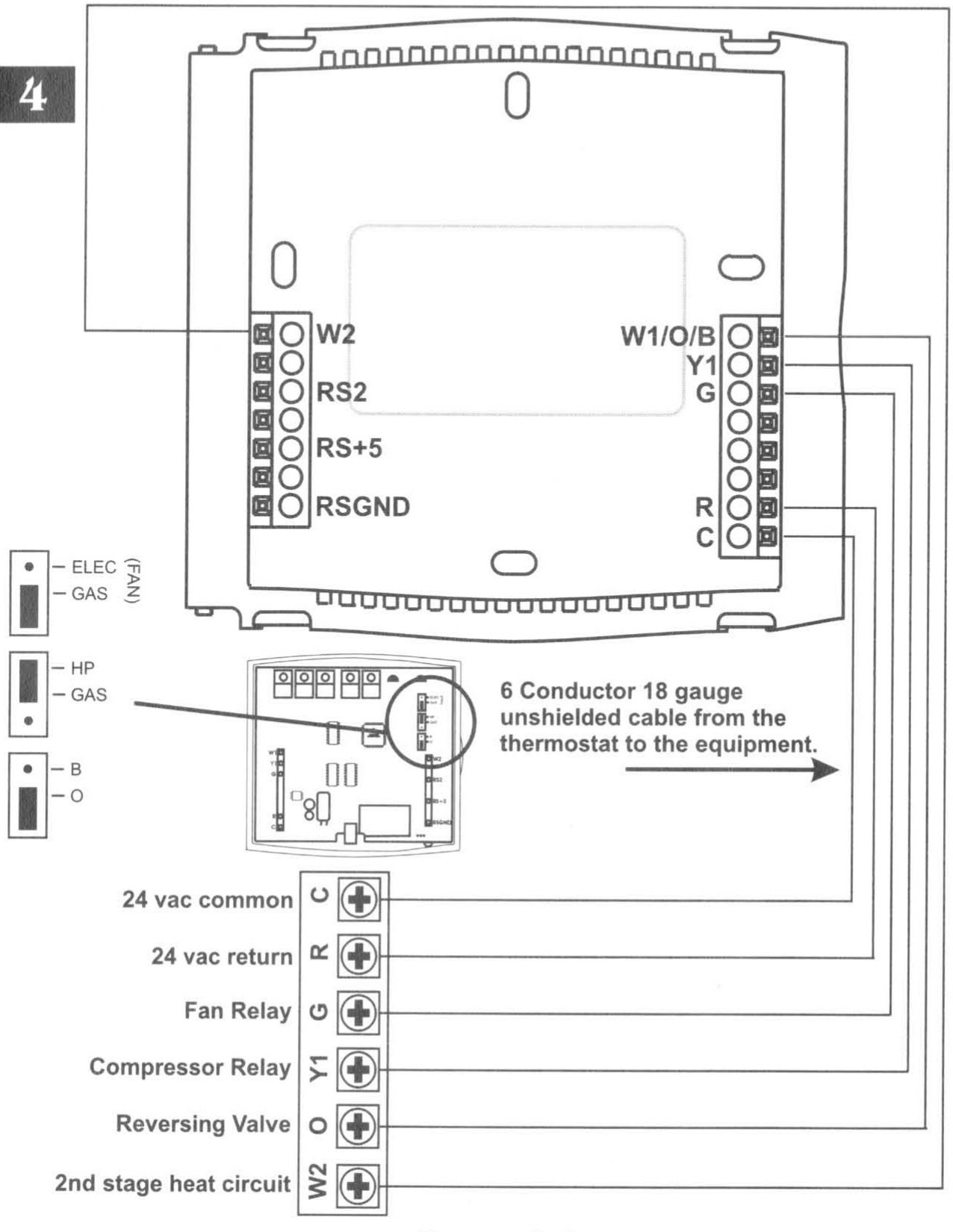
6 Wire, 1 Stage Cooling, 1 Stage Heat

Residential & Commercial 1 Stage Cooling,
with 1st stage Electric Heat



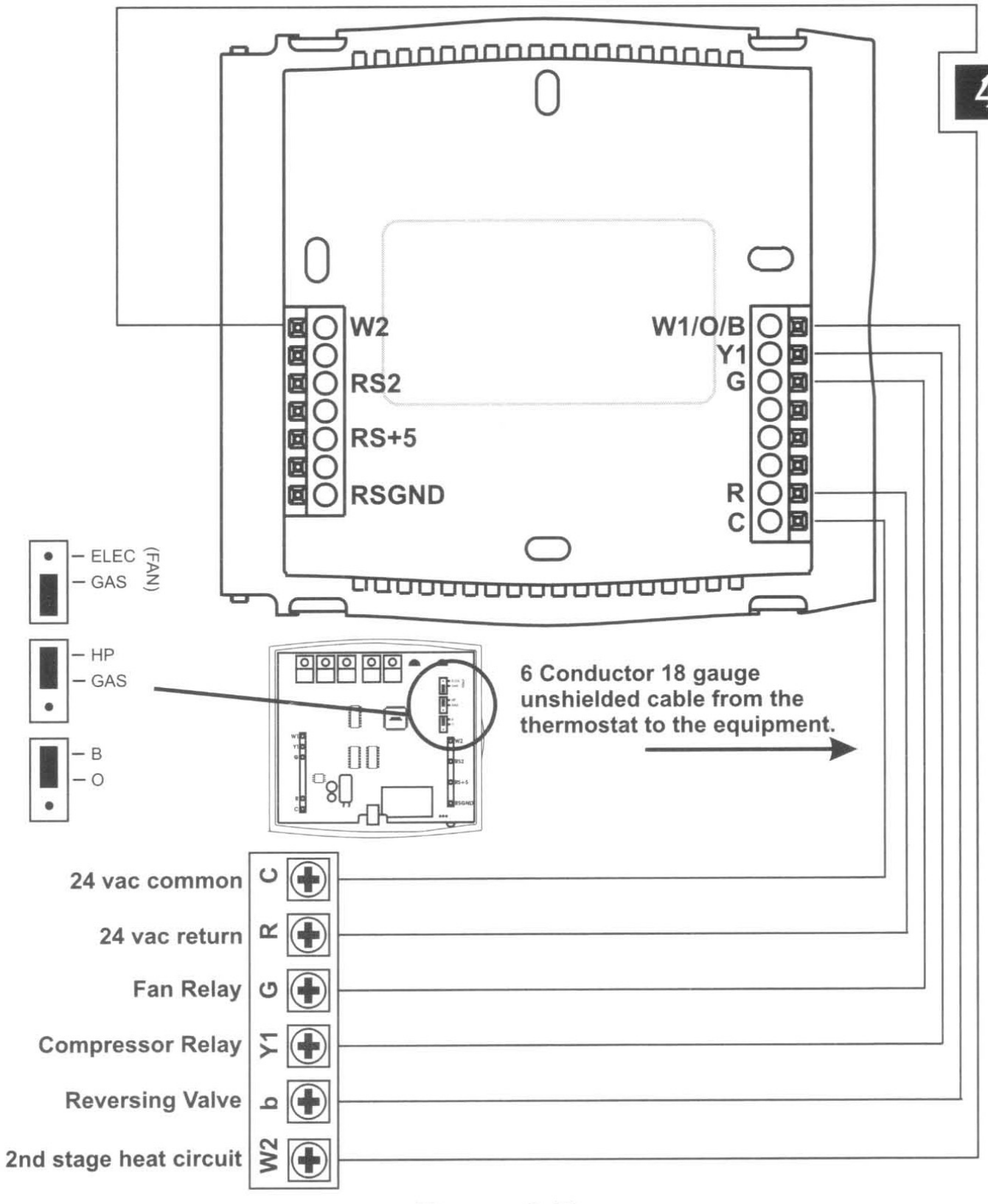
6 Wire, 1 Stage Cooling, 2 Stage Heat

Residential Heat Pump with O Reversing Valve 1 Stage Cooling, with 2 stage Heat



6 Wire, 1 Stage Cooling, 2 Stage Heat

Residential Heat Pump with b Reversing Valve 1 Stage Cooling, with 2 stage Heat



Installing the Outdoor Sensor

The Outdoor Sensor measures outdoor air temperature and sends this information to the thermostat; it measures temperature with a range of -40°to 127°F.

The Outdoor Sensor should be connected to the thermostat using solid conductor CAT 5, CAT 5e, or CAT 6 type network communication cable. This is an unshielded cable with four twisted pairs of 24 gauge solid wire; *DO NOT use stranded cable*. The cable length should not exceed 250 feet. If less than 75 feet of cable is required to connect the thermostat to the Remote Sensor, a three conductor thermostat cable (18-24 gauge) may be used; this cable is NOT suitable for any length greater than 75 feet.

IMPORTANT: Do no use shielded wire. Do not run sensor wiring in the same conduit as the 24VAC thermostat wiring. Electrical interference may cause the sensor to give incorrect temperature readings.

See the Outdoor Sensor accessory for further details.

Turn the power on to the Heating/Air Conditioning system.

Press the *MODE* button repeatedly until the **HEAT** icon appears on the display. Press the UP or DOWN buttons until the set temperature is 10 degrees above room temperature. The furnace should turn on.

Press the *MODE* button repeatedly until the **COOL** icon appears on the display. Press the UP or DOWN buttons until the set temperature is 10 degrees below room temperature. The air conditioner should turn on.

NOTE: *Most equipment has a time delay of 5 minutes between cool cycles. This feature is defeatable on the thermostat. Consult the Owner's Manual under Setup, cycles per hour (page 11.3).*

Press the UP button until the setpoint is equal to the room temperature. Press the *FAN* button to **Fan On**. The fan should turn on and run continuously.

SECTION 6
Calibrating the Thermostat Sensors

VENSTAR®

Calibrating the Temperature and Humidity Sensors

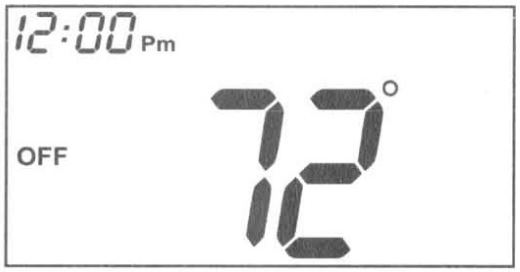
Under normal circumstances it will not be necessary to adjust the calibration of the temperature and humidity sensors. If calibration is required, please contact a trained HVAC technician to correctly perform the following procedure.

6

1

MODE

Place the thermostat in the OFF mode.



2

MODE

FAN

Press and hold the MODE button. While holding the MODE button, press and hold the FAN button for 5 seconds. All icons will appear on the display.

3

PRESS

TWICE

THERMOSTAT SENSOR

Press the UP and DOWN buttons at the same time twice. The thermostat temperature will be displayed and may be calibrated using the UP or DOWN buttons.

CALIBRATE

After calibration is complete, press the MODE button **once** to return to normal operation.

SYMPTOM: The air conditioning does not attempt to turn on.
CAUSE: The compressor timer lockout may prevent the air conditioner from turning on for a period of time.
REMEDY: Consult the Owner's Manual in the Setup section to defeat the cycles per hour and compressor timeguard.

SYMPTOM: The display is blank.
CAUSE: Lack of proper power.
REMEDY: Make sure power is turned on to the furnace and that you have 24vac between **R** & **W** and 24vac between **R** & **C**.

SYMPTOM: The air conditioning does not attempt to turn on.
CAUSE: The cooling setpoint is set too high.
REMEDY: Consult the Owner's Manual in the Setup section to lower the cooling setpoint limit.

SYMPTOM: The heating does not attempt to turn on.
CAUSE: The heating setpoint is set too low.
REMEDY: Consult the Owner's Manual in the Setup section to raise the heating setpoint limit.

SYMPTOM: When controlling a residential heat pump, and asking for cooling, the heat comes on.
CAUSE: The thermostat reversing valve jumper is set for **"b"**.
REMEDY: Set the reversing valve jumper for **"O"**. See pages 4.4 and 4.5.

7

SYMPTOM: When calling for cooling, both the heat and cool come on.
CAUSE: The thermostat equipment jumper is configured for **"HP"** and the HVAC unit is a Gas/Electric.
REMEDY: Set the equipment jumper for **"Gas"**. See pages 4.2 and 4.3.

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RESIDENTIAL
THERMOSTAT
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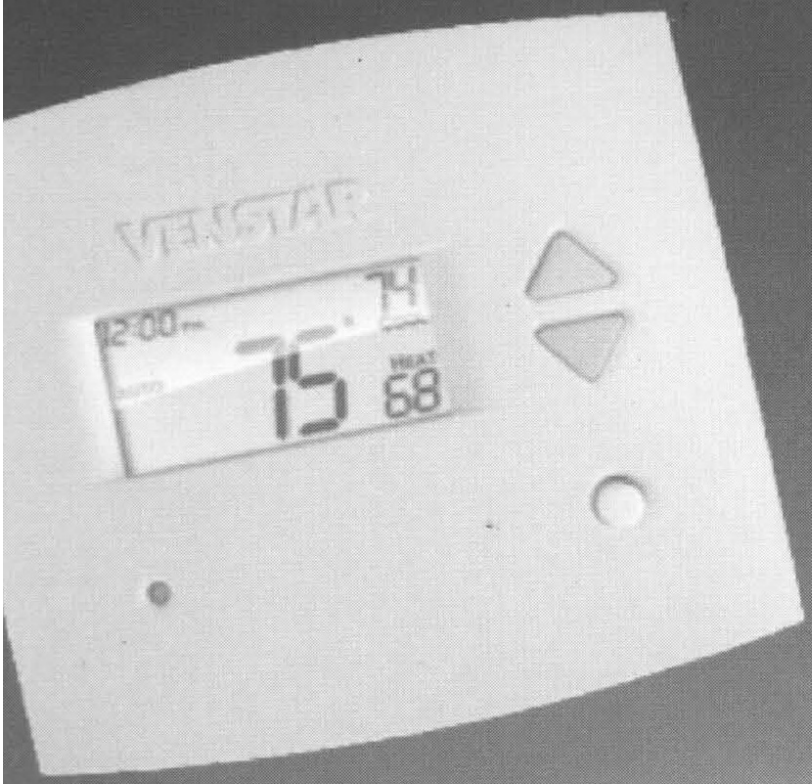
DIGITAL THERMOSTAT

1-DAY PROGRAMMABLE UP TO 2-HEAT & 1-COOL



HEAT COOL & HEAT PUMP

CONFIGURABLE IN SETUP:
- Auto or Manual changeover
- Programmable or Non-Programmable

- Control up to 2 Heat & 1 Cool Stages
- Backlit Display & Button Legends
- Aux Heat Indicator
- Outdoor Sensor Ready
- Accepts EZ Programmer™
- Accepts Optional IR Remote Control
- Accepts Comfort Call™ Phone Control Accessory

- Use with most Air Conditioning & Heating Systems including: 1 or 2 Stage Electric Cooling & 3 Stage Gas Heating, Heat Pump, Electric or Hydronic Heat.

OWNER'S MANUAL

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⚠ CAUTION

Follow the Installation Instructions before proceeding. Set the thermostat mode to "OFF" prior to changing settings in setup or restoring Factory Defaults.

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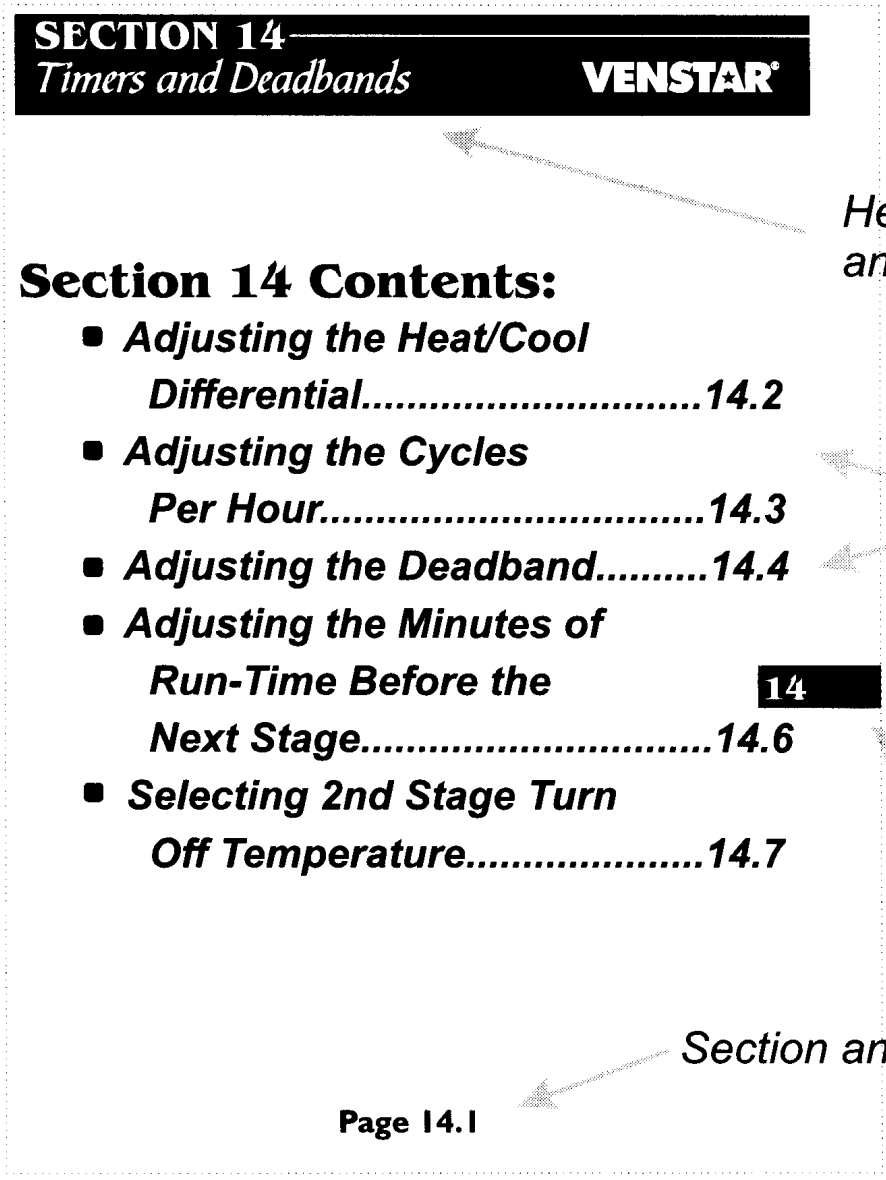
Thermostat T1700
FC Tested to Comply with FCC Standards
FOR HOME OR OFFICE USE

How to Use This Manual

VENSTAR®

The Table of Contents divides the thermostat features into sections making it easier to quickly find information.

The first page of each section contains a more detailed Table of Contents for each section, such as the example page shown below.



SECTION 14
Timers and Deadbands VENSTAR®

Header shows section # and title of section

Section 14 Contents:

- ***Adjusting the Heat/Cool Differential.....14.2***
- ***Adjusting the Cycles Per Hour.....14.3***
- ***Adjusting the Deadband.....14.4***
- ***Adjusting the Minutes of Run-Time Before the Next Stage.....14.6***
- ***Selecting 2nd Stage Turn Off Temperature.....14.7***

Section contents

14

Visible section tab on the side of the page

Section and page #

Page 14.1

In addition, this manual also has an Index to help you find any information regarding this thermostat quickly.

Glossary of Terms

VENSTAR®

Auto-Changeover: A mode in which the thermostat will turn on the heating or cooling based on room temperature demand.

Cool Setpoint: The warmest temperature that the space should rise to before cooling is turned on (without regards to deadband).

Deadband: The number of degrees the thermostat will wait, once setpoint has been reached, before energizing heating or cooling.

Differential: The forced temperature difference between the *heat setpoint* and the *cool setpoint.*

Heat Setpoint: The coolest temperature that the space should drop to before heating is turned on (without regards to deadband).

Icon: The word or symbol that appears on the thermostat display.

Mode: The current operating condition of the thermostat (i.e. Off, Heat, Cool, *Auto,* Program On).

Non-Programmable Thermostat: A thermostat that does not have the capability of running the *Time Period Programming.*

Programmable Thermostat: A thermostat that has the capability of running the *Time Period Programming.*

Temperature Swing: *Same as Deadband.*

Time Period Programming: A program that allows the thermostat to automatically adjust the *heat setpoint* and/or the *cool setpoint* based on the time of day.

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Setting Clock	3
Basic Operation	4
Viewing the Outdoor Temperature	5
Programming the Daily Schedule	6
Programming the Fan Operation	7
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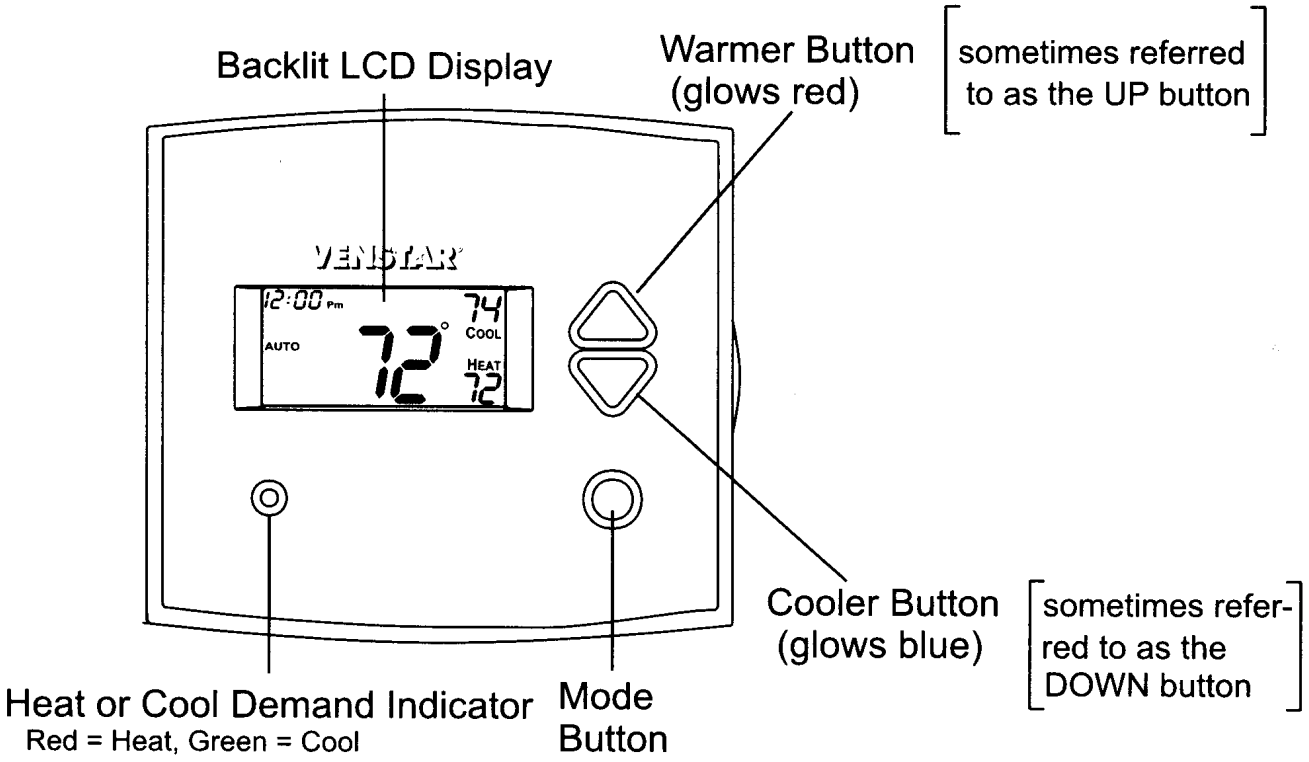
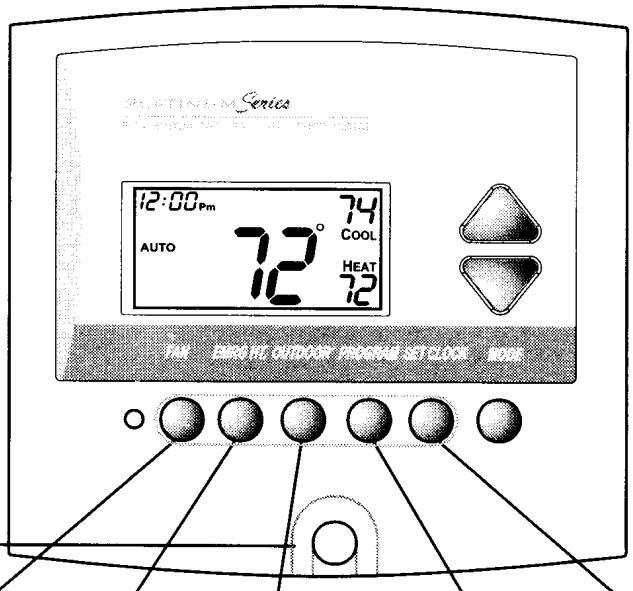
VENSTAR®

Section 1 Contents:

- *Front Panel Buttons.....1.2*
- *Display Features.....1.3*

Front Panel

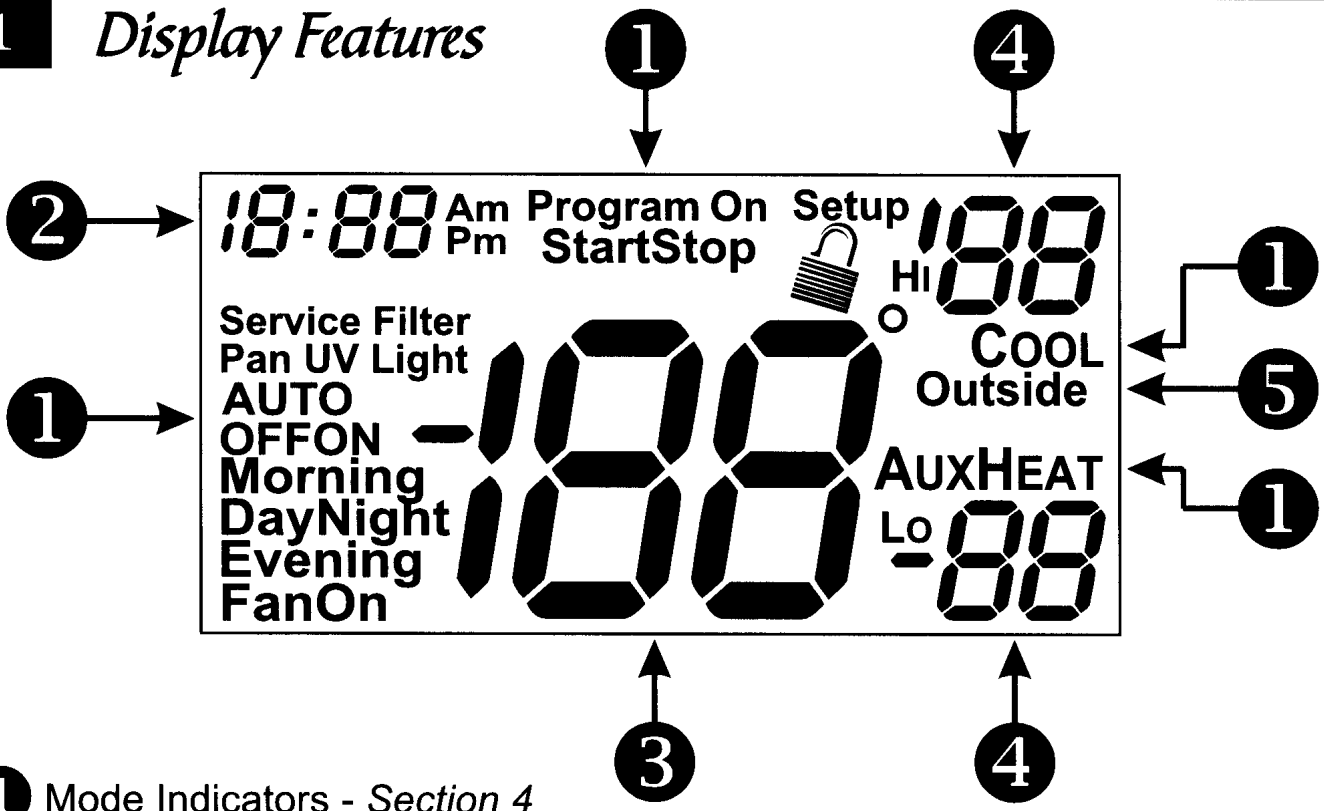




QUICK RELEASE FOR ACCESSORY PORT
(pg. 13.1)

FAN **EMRG HT.** **OUTDOOR°** **PROGRAM** **SET CLOCK**

1 *Display Features*



1 Mode Indicators - *Section 4*
Selects the operational mode of the equipment.
HEAT - Indicates the heating mode.
COOL - Indicates the air conditioning mode.
AUTO - Indicates the system will automatically changeover between heat and cool modes as the temperature varies.
OFF - Indicates heating and cooling is turned off.
PROGRAM ON - Indicates the time period program is enabled to run.

2 Clock - *Section 3*
Indicates the current time. This clock is also used to program the time period schedule.

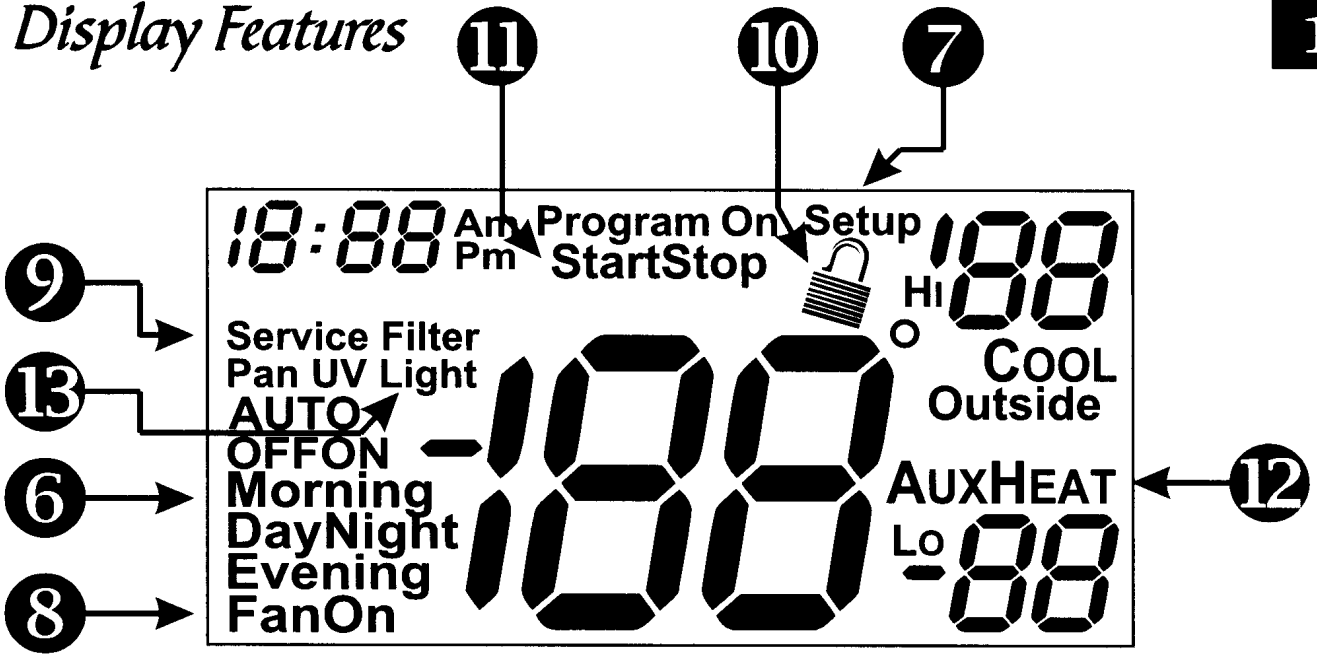
3 Room Temperature Display - *Section 5*
Indicates the current room temperature and displays the outdoor temperature when selected.

4 Desired Set Temperature - *Section 4/5*
Indicates desired room temperature(s).

5 **Outside** icon - *Section 5*
Indicates the temperature displayed is from the optional outdoor sensor.

6 **Morning**, **Day**, **Evening** & **Night** icons - *Section 6*
Indicates the day part of the time period program.

Display Features



7 **Setup** icon - *Sections 6-11*
Indicates the thermostat is in the setup mode.

8 **Fan On** icon - *Section 7*
Indicates constant, continuous fan operation.
When **Fan On** is not lit - indicates the fan will only operate when necessary to heat or to cool.

9 **Service Filter** icon - *Section 9*
Appears when the filter should be serviced under normal conditions. Adjustable from 0 - 1950 hours of blower operation.

10 icon - *Section 8*
Indicates the keypad has been locked.

11 **StartStop** icon - *Section 6*
Appears when programming timer functions.

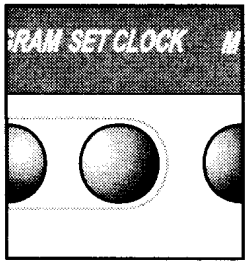
12 **AuxHeat** icon - *Page 11.4*
Indicates the Heat Pump is currently using 2nd stage electric strip heat.

13 **UV Light** icon - *Section 9*
Appears when the UV bulb should be serviced under normal conditions. Adjustable from 0 - 1990 days of operation.

Section 2 Contents:

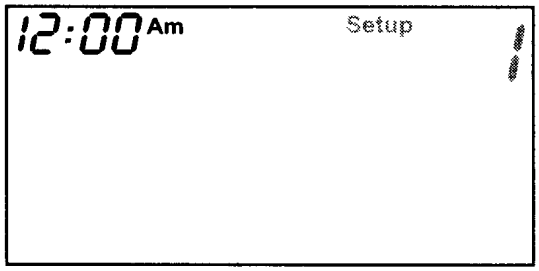
- *Setting the Clock 2.2*
- *Selecting the Heat or Cool Mode.....2.3*
- *Selecting Your Desired Temperature.....2.4*
- *Using the Fan Button.....2.4*

Note: *Following the instructions in this section will allow you to operate your thermostat using the factory default settings. These settings are depicted in the illustrations throughout this manual.*



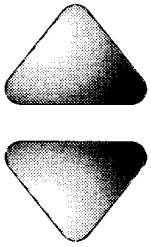
Press the SET CLOCK button

Setting the Clock



During Setup & Programming: Pressing the UP or DOWN buttons will modify the flashing selection.

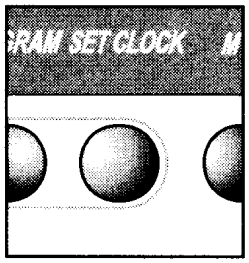
To adjust the Clock or Day use



Buttons.

To adjust the time by hours press and hold the FAN button while pressing the UP or DOWN buttons.

Press the SET CLOCK button to return to normal operation.

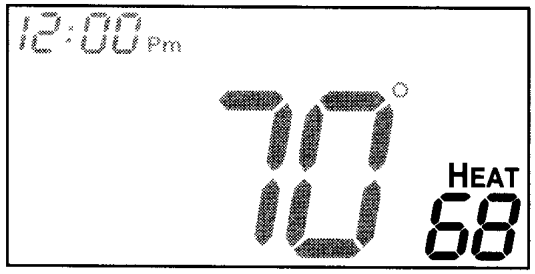


Selecting the Heat or Cool Mode

2

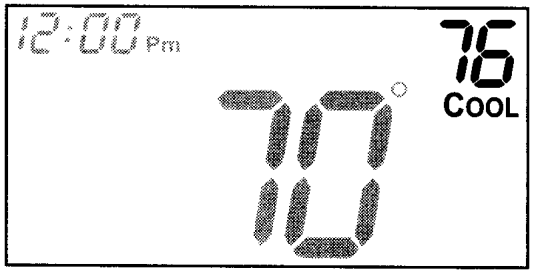
Select Mode by Pressing the MODE Button

Heating Only
*The **HEAT** setting indicates the temperature the room has to reach before the furnace will turn on to heat the room.*



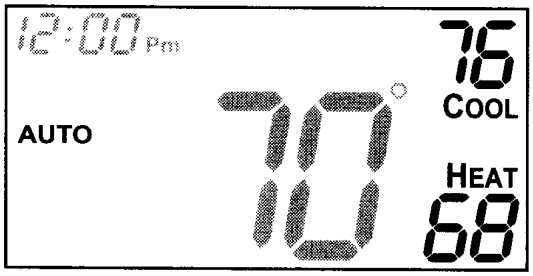
Press MODE

Cooling Only
*The **COOL** setting indicates the temperature the room has to reach before the air conditioner will turn on to cool the room.*



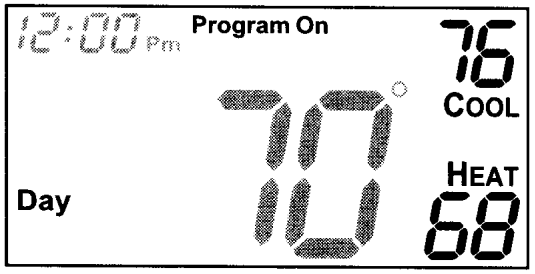
Press MODE

Heating or Cooling
***AUTO** will automatically select heat or cool based on room temperature demand.*



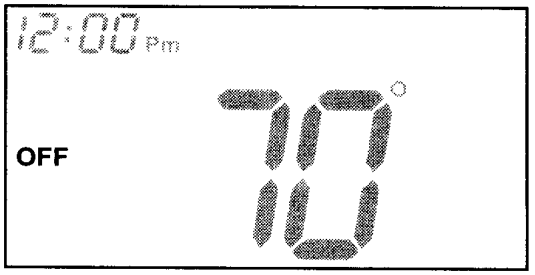
Press MODE

Time Schedule for Heating or Cooling
*The **Program On** setting will activate the time period programming for the cooling or heating setpoint ONLY (Morning, Day, Evening & Night Periods).*



Press MODE

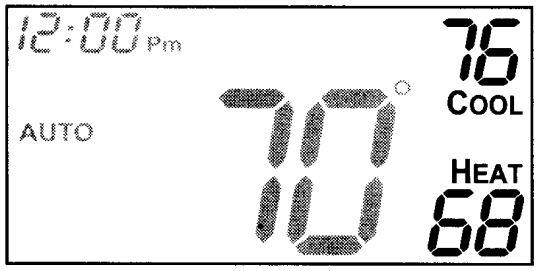
Off
***OFF** indicates both heating and air conditioning systems are turned off.*



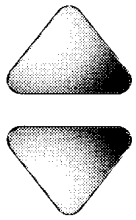
Selecting Your Desired Temperature (adjusting the setpoints)

AUTO OR PROGRAM MODE

Pressing the UP or DOWN buttons in Auto **or** Program mode will adjust **both** the heat and cool set temperatures simultaneously.



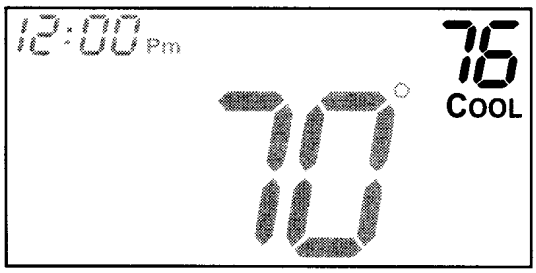
Adjust the desired set temperature with the



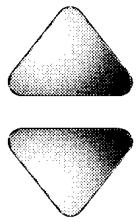
buttons.

HEAT OR COOL MODE

Pressing the UP or DOWN buttons in Heat **or** Cool mode will adjust only the heat **or** cool set temperature.

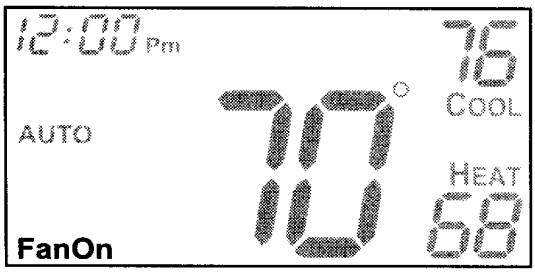


Adjust the desired set temperature with the



buttons.

Using the Fan Button



Press FAN

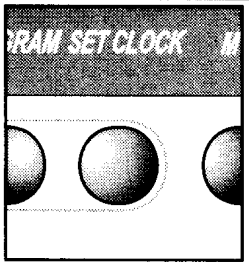
Fan On indicates constant fan operation. You may turn the fan on even if the thermostat is in the **Off** mode. Pressing the FAN button toggles this feature on or off.

3

Section 3 Contents:

- ***Setting the Clock.....3.2***

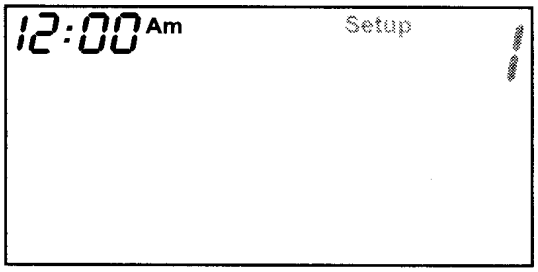
Note: *During setup & programming pressing the UP or DOWN buttons will modify the flashing selection.*



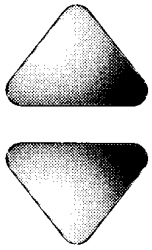
Press the SET CLOCK button

Setting the Clock

During Setup & Programming: Pressing the UP or DOWN buttons will modify the flashing selection.

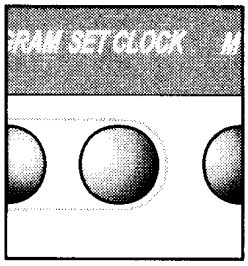


To adjust the Clock or Day use



Buttons.

Press the SET CLOCK button to return to normal operation.



To adjust the time by hours press and hold the FAN button while pressing the UP or DOWN buttons.

4

Section 4 Contents:

- ***Programmable or Non-Programmable Thermostat.....4.2***
- ***Manual or Auto-Changeover Thermostat.....4.3***
- ***Selecting the Operating Mode.....4.4***
- ***Selecting Your Desired Temperature.....4.8***

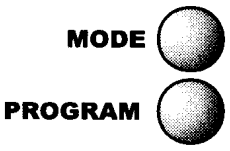
Note: *During setup & programming pressing the UP or DOWN buttons will modify the flashing selection.*

Programmable or Non-Programmable Thermostat

When the very simplest operation is desired, this thermostat may be configured to be non-programmable, with or without Auto-Changeover. Follow the step below.

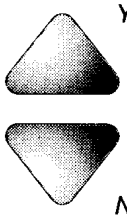
If 'NO' is selected, the thermostat will lockout the Program On screen; only the Off, Heat, Cool, and Auto screens may be accessed by pressing the MODE button.

Select 'YES' if you would like your thermostat to be **programmable**, then the Program mode will be accessible through the use of the MODE button.

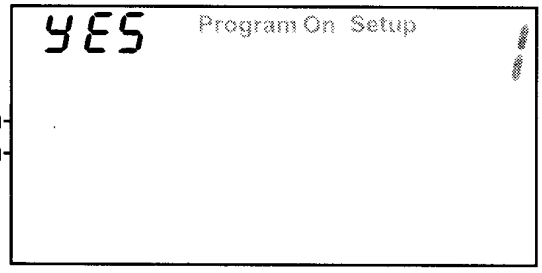


Press the MODE button. While holding the MODE, press the PROGRAM button to enter Setup screens.

Note: Press the MODE button momentarily to move through the setup screens. Press and hold the MODE button to move backwards through the setup screens.



Select Yes if you would like the thermostat to be programmable or No for non-programmable.

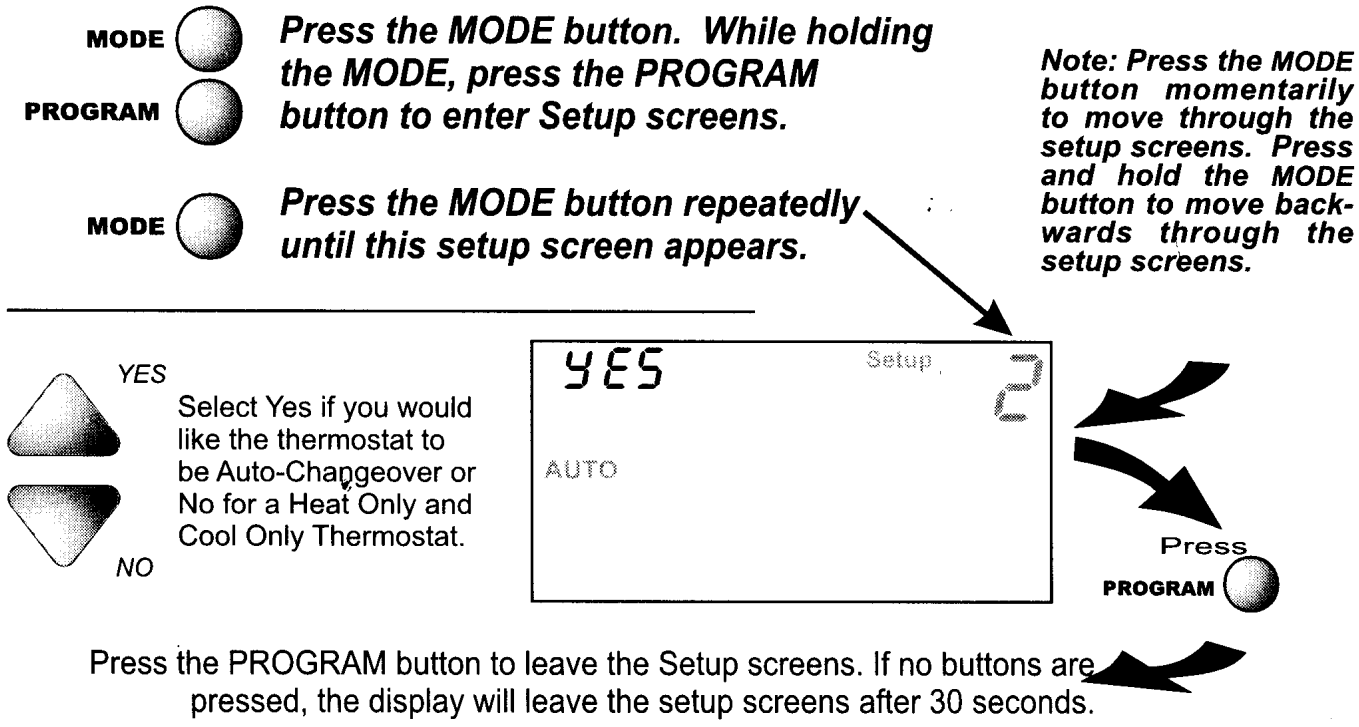


Press the PROGRAM button to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

Manual or Auto-Changeover Thermostat

4 When the very simplest operation is desired, this thermostat may be configured to be a manual heat and cool thermostat, with or without time period programmability. Follow the step below.

The thermostat may be programmed to function as a Heat Only or Cool Only thermostat by selecting 'NO' in the setup screen below. This will lockout the Auto-Changeover screen and only allow the Off, Heat, Cool, and Program On screens to be accessed.


MODE
PROGRAM
Press the MODE button. While holding the MODE, press the PROGRAM button to enter Setup screens.
MODE
Press the MODE button repeatedly until this setup screen appears.
Note: Press the MODE button momentarily to move through the setup screens. Press and hold the MODE button to move backwards through the setup screens.
YES
NO
Select Yes if you would like the thermostat to be Auto-Changeover or No for a Heat Only and Cool Only Thermostat.
YES
Setup
2
AUTO
Press
PROGRAM
Press the PROGRAM button to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

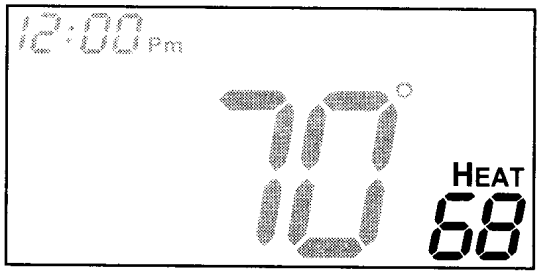
Operating Mode when the Thermostat is Configured to be:

NON-PROGRAMMABLE WITH MANUAL CHANGEOVER - If the thermostat is configured to be a non-programmable thermostat with Manual Changeover, the following screens will be available by pressing the MODE button.

Select the Mode by Pressing the MODE Button

Heating Only

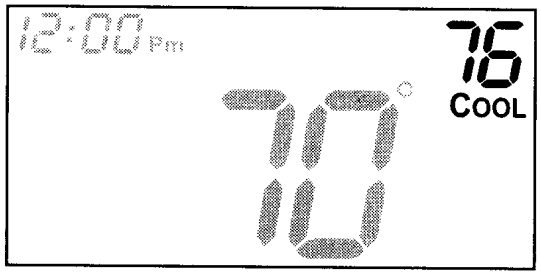
*The **HEAT** setting indicates the temperature the room has to reach before the furnace will turn on to heat the room.*



Press **MODE**

Cooling Only

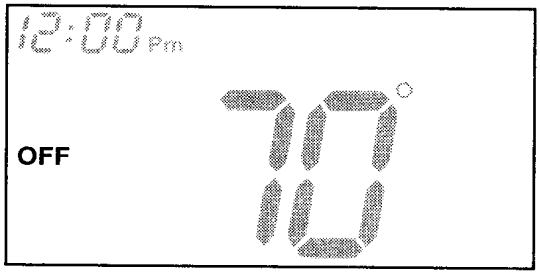
*The **COOL** setting indicates the temperature the room has to reach before the air conditioner will turn on to cool the room.*



Press **MODE**

Off

***OFF** indicates both heating and air conditioning systems are turned off.*



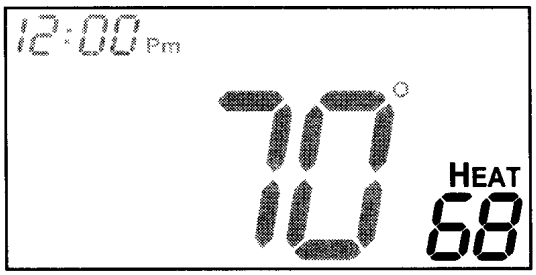
Operating Mode when the Thermostat is Configured to be:

4

NON-PROGRAMMABLE WITH AUTO-CHANGEOVER - If the thermostat is configured to be a non-programmable thermostat with Auto-Changeover, the following screens will be available by pressing the MODE button

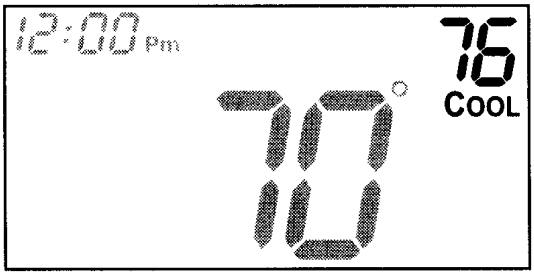
Select the Mode by Pressing the MODE Button

Heating Only
*The **HEAT** setting indicates the temperature the room has to reach before the furnace will turn on to heat the room.*



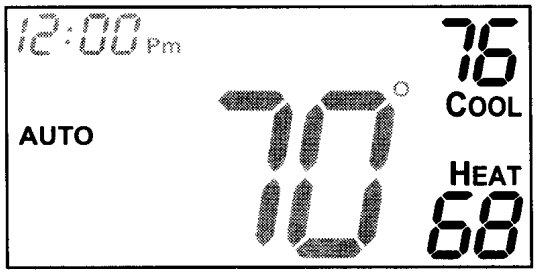
Press **MODE**

Cooling Only
*The **COOL** setting indicates the temperature the room has to reach before the air conditioner will turn on to cool the room.*



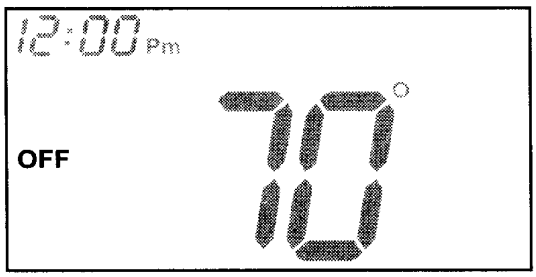
Press **MODE**

Heating or Cooling
***AUTO** will automatically select heat or cool based on room temperature demand.*



Press **MODE**

Off
***OFF** indicates both heating and air conditioning systems are turned off.*



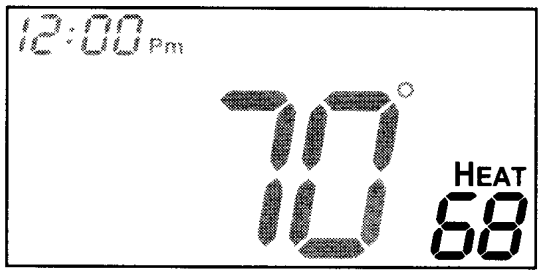
Operating Mode when the Thermostat is Configured to be:

PROGRAMMABLE WITH MANUAL CHANGEOVER - If the thermostat is configured to be a programmable thermostat with Manual Changeover, the following screens will be available by pressing the MODE button.

Select the Mode by Pressing the MODE Button

Heating Only

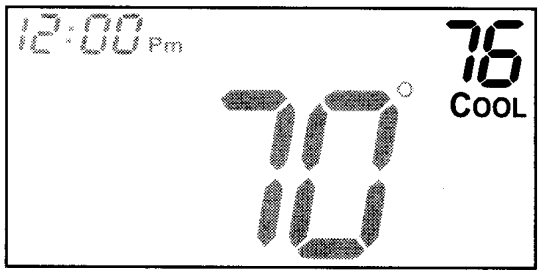
*The **HEAT** setting indicates the temperature the room has to reach before the furnace will turn on to heat the room.*



Press MODE

Cooling Only

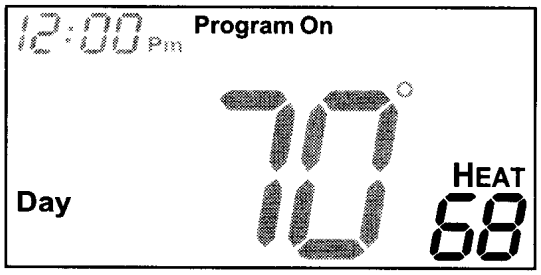
*The **COOL** setting indicates the temperature the room has to reach before the air conditioner will turn on to cool the room.*



Press MODE

Time Schedule for Heating Only

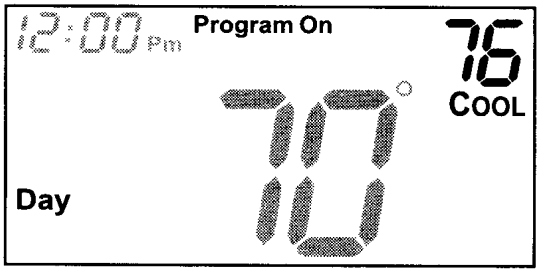
*The **HEAT Program On** setting will activate the time period program for the heating setpoint ONLY (Morning, Day, Evening & Night Periods).*



Press MODE

Time Schedule for Cooling Only

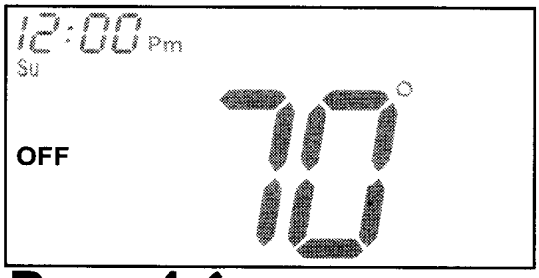
*The **COOL Program On** setting will activate the time period program for the cooling setpoint ONLY (Morning, Day, Evening & Night Periods).*



Press MODE

Off

***OFF** indicates both heating and air conditioning systems are turned off.*



Operating Mode when the Thermostat is Configured to be:

4

PROGRAMMABLE WITH Auto-Changeover - If the thermostat is configured to be a programmable thermostat with Auto-Changeover, the following screens will be available by pressing the MODE button.

Select the Mode by Pressing the MODE Button

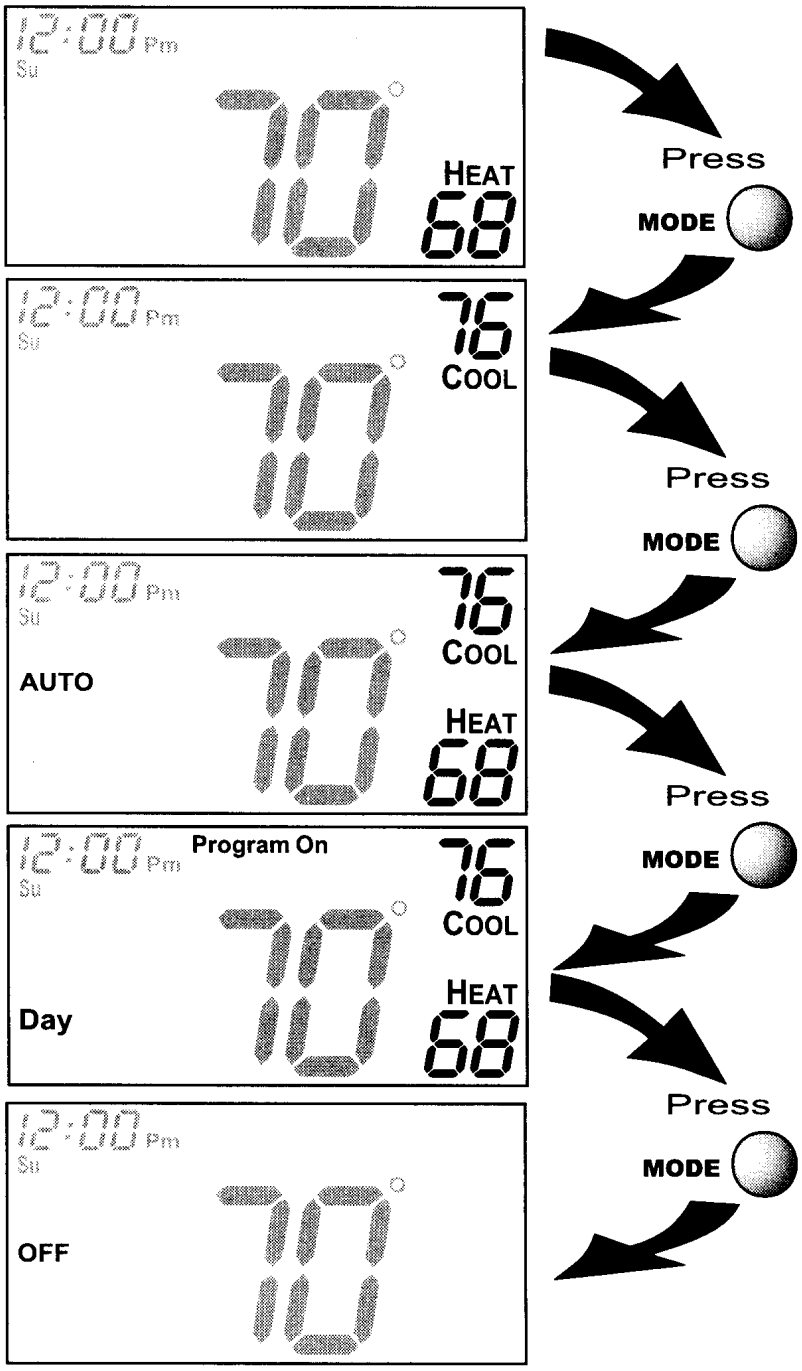
Heating Only
*The **HEAT** setting indicates the temperature the room has to reach before the furnace will turn on to heat the room.*

Cooling Only
*The **COOL** setting indicates the temperature the room has to reach before the air conditioner will turn on to cool the room.*

Heating or Cooling
***AUTO** will automatically select heat or cool based on room temperature demand.*

Time Schedule for Heating or Cooling
*The **Program On** setting wil activate the time period programming for the cooling or heating setpoint ONLY (Morning, Day, Evening & Night Periods).*

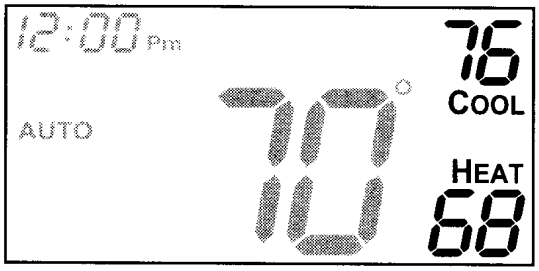
Off
***OFF** indicates both heating and air conditioning systems are turned off.*



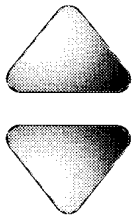
Selecting Your Desired Temperature (adjusting setpoints)

AUTO OR PROGRAM MODE

Pressing the UP or DOWN buttons in Auto **or** Program modes will adjust **both** the heat and cool set temperatures simultaneously. For more information on this see page 11.2.



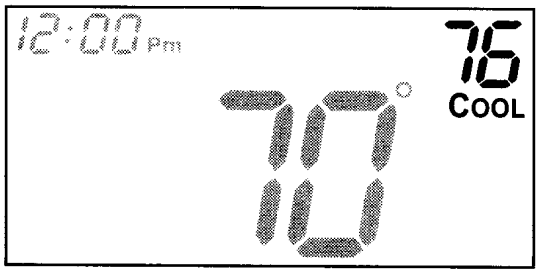
Adjust the desired set temperature with the



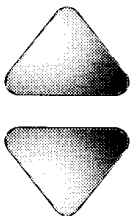
buttons.

HEAT OR COOL MODE

Pressing the UP or DOWN buttons in Heat **or** Cool modes will adjust only the heat **or** cool set temperature.



Adjust the desired set temperature with the



buttons.

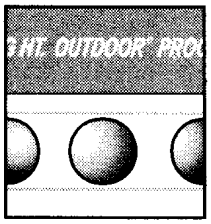
5

Section 5 Contents:

- ***Viewing the Outdoor Temperature.....5.2***

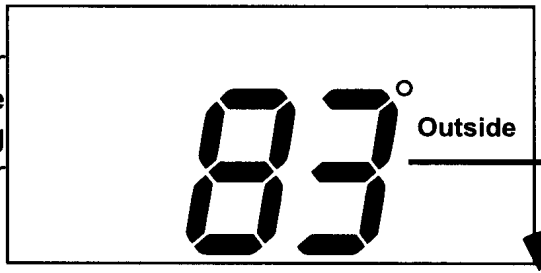
Viewing the Outdoor Temperature

This requires an outdoor sensor (optional accessory) to be installed (*see page 4.6 of the Installation Instructions*). To read the temperature from the Outdoor Sensor, press the OUTDOOR° button. The display will then show the current outdoor temperature.



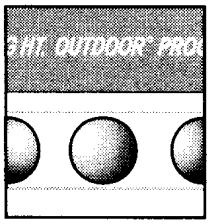
Press the OUTDOOR° button.

The current outdoor temperature will be displayed. This reading is from the sensor connected to RS2.



Current outdoor temperature.

Press the OUTDOOR° button to return to normal operation.



Note: If no sensors are connected 2 dashes [- -] will appear on the display.

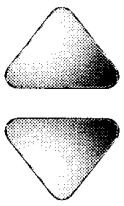
Section 6 Contents:

6 ■ *Programming a Daily Schedule.....6.2*

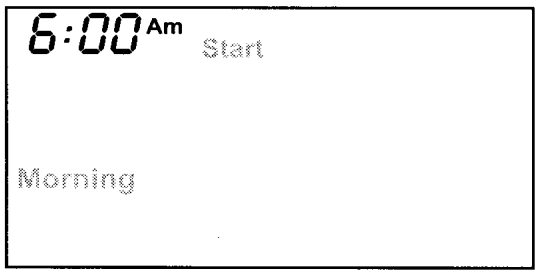
Programming a Daily Schedule

Press
PROGRAM

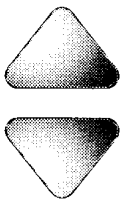
Press the PROGRAM button to enter time period programming.



Adjust the start time for Morning.

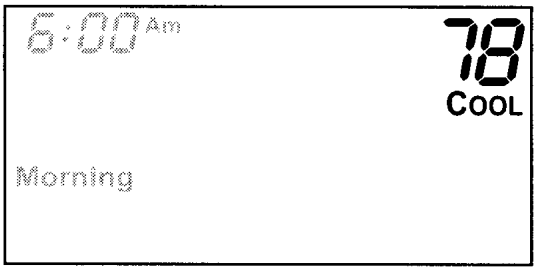


Press
MODE

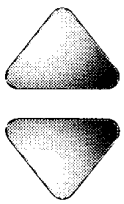


Adjust the cooling setpoint for Morning.

(35° - 99°)

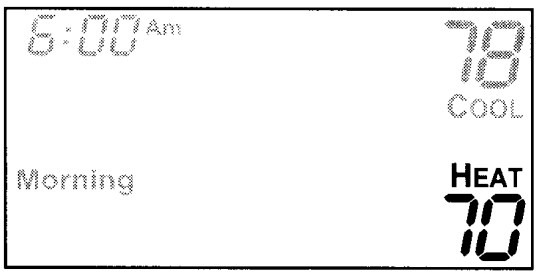


Press
MODE

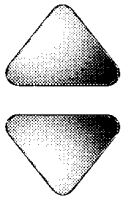


Adjust the heating setpoint for Morning.

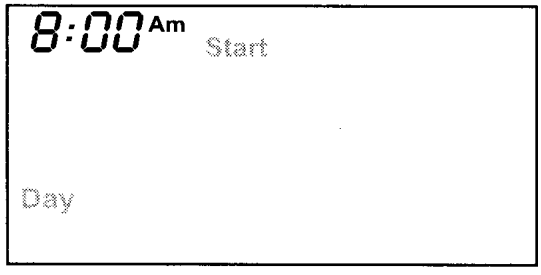
(35° - 99°)



Press
MODE



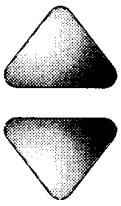
Adjust the start time for Day.



Press
MODE

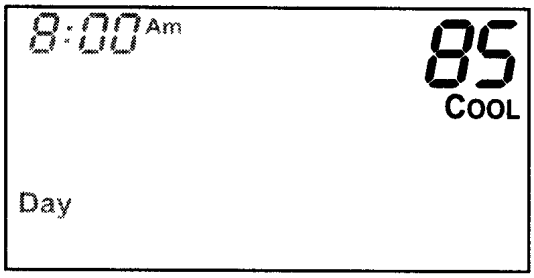
Continued

6

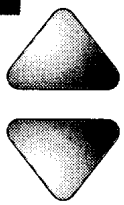


Adjust the cooling setpoint for Day.

(35°- 99°)

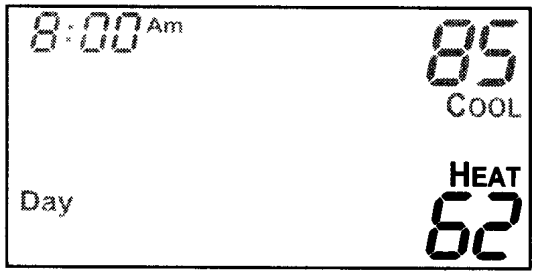


Press MODE

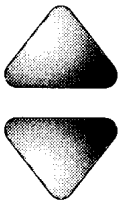


Adjust the heating setpoint for Day.

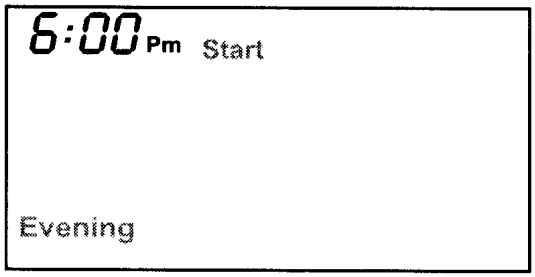
(35°- 99°)



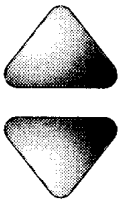
Press MODE



Adjust the start time for Evening.

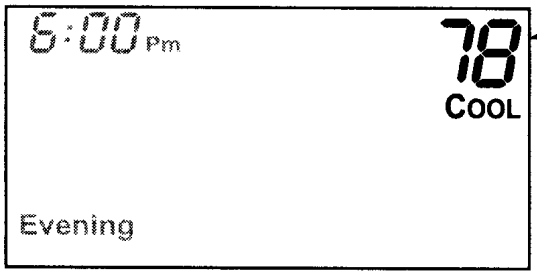


Press MODE

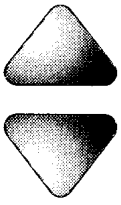


Adjust the cooling setpoint for Evening.

(35°- 99°)

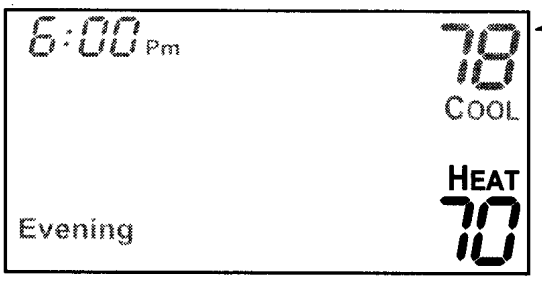


Press MODE



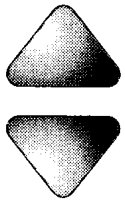
Adjust the heating setpoint for Evening.

(35°- 99°)

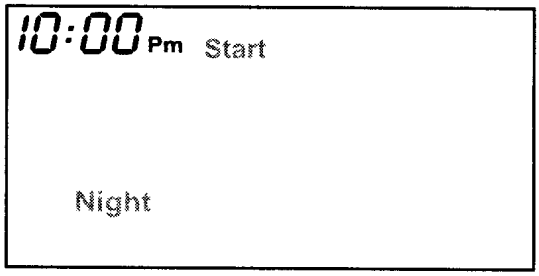


Press MODE

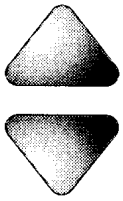
Continued



Adjust the start time for Night.

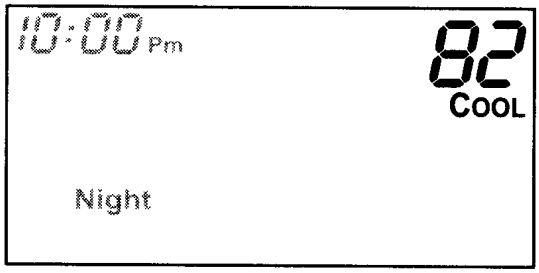


Press MODE

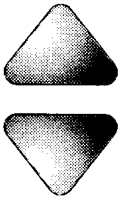


Adjust the cooling setpoint for Night.

(35°- 99°)

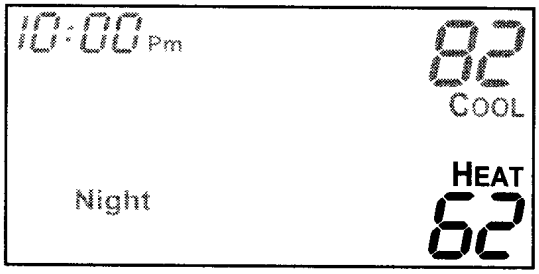


Press MODE



Adjust the heating setpoint for Night

(35°- 99°)



Press PROGRAM

Press the PROGRAM button to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

Section 7 Contents:

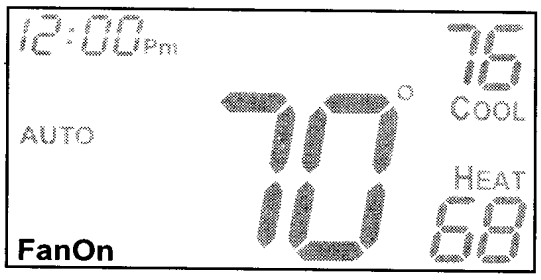
7

- *Using the Fan Button.....7.2*
- *Setting the Fan-Off Time Delay.....7.3*

Using the Fan Button

When the fan is set for automatic operation it will energize any time there is a call for heating or cooling, otherwise the fan will remain off. Pressing the FAN button will energize the fan and display the **FanOn** icon on the thermostat display. To operate the fan in the automatic mode, press the FAN button again and the FanOn icon will disappear.

Press
FAN



Fan On indicates constant fan operation. You may turn the fan on even if the thermostat is in the **Off** mode. Pressing the FAN button toggles this feature on or off.

Setting the Fan-Off Time Delay

To increase the cooling efficiency of your unit, the thermostat may be programmed to continue running the fan after a call for cooling has been satisfied. This delay may be set for 30, 60, or 90 seconds. If the Fan Off Delay is set for zero seconds, the fan will not energize after a call for cooling has been satisfied.

7

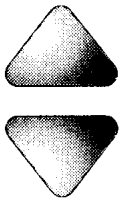
MODE
PROGRAM

Press the MODE button. While holding the MODE, press the PROGRAM button to enter Setup screens.

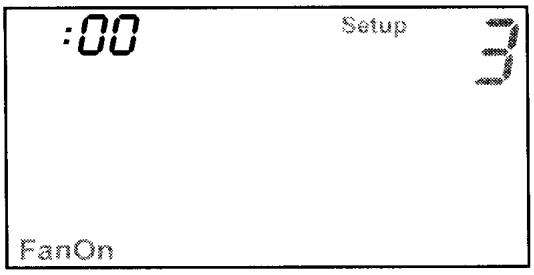
MODE

Press the MODE button repeatedly until this setup screen appears.

Note: Press the MODE button momentarily to move through the setup screens. Press and hold the MODE button to move backwards through the setup screens.



Set the Fan Off Delay to 0, 30, 60, or 90 seconds.



Press
PROGRAM

Press the PROGRAM button to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

Section 8 Contents:

- *Turning On/Off the Backlight.....8.2*
- *Programming the Thermostat to Display Temperature in Fahrenheit or Celsius.....8.2*
- *Locking/Unlocking the Keypad.....8.3*

Turning On/Off the Backlight

MODE
PROGRAM

Press the MODE button. While holding the MODE, press the PROGRAM button to enter Setup screens.

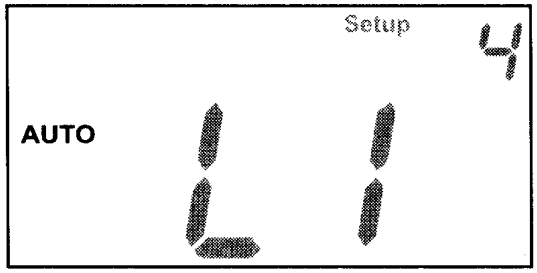
MODE

Press the MODE button repeatedly until this setup screen appears.

Note: Press the MODE button momentarily to move through the setup screens. Press and hold the MODE button to move backwards through the setup screens.

8

Select backlight operation:
AUTO - Light from 6pm to 6am nightly.
ON - Light continuously.
OFF - Light for 8 seconds after a button press.



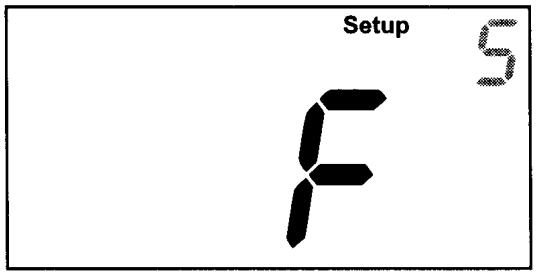
Press
MODE

Programming the Thermostat to Display Temperature in Fahrenheit or Celsius

C

Select thermostat operation in degrees **F**ahrenheit or **C**elsius.

F



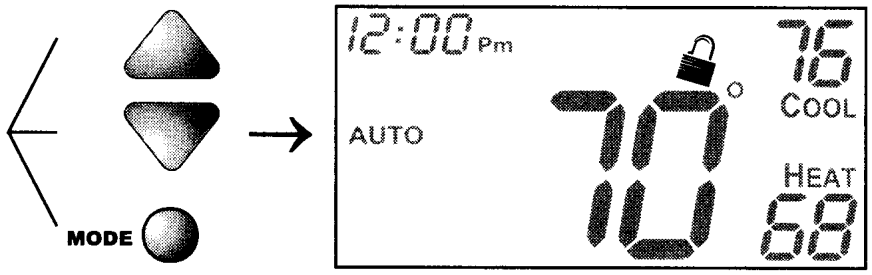
Press
PROGRAM

Press the PROGRAM button to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

Locking/Unlocking the Keypad

To prevent unauthorized use of the thermostat, the front panel buttons may be disabled. To disable, or 'lock' the keypad, press and hold the MODE button. While holding the MODE button, press the UP and DOWN buttons together. The icon will appear on the display, then release the buttons.

Press all three buttons in the order outlined above for keypad lockout



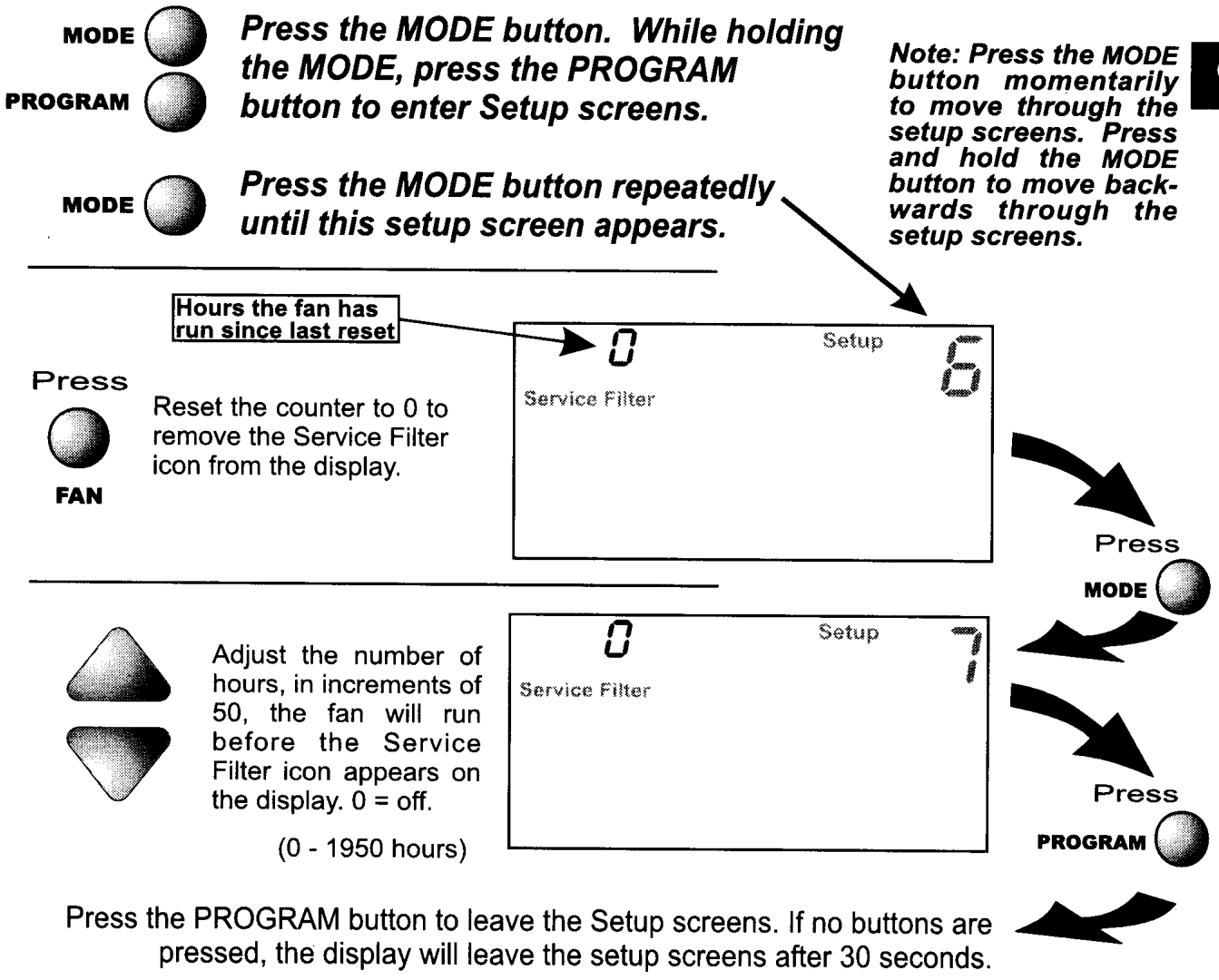
To ***unlock*** the keypad, press and hold the MODE button. While holding the MODE button, press the UP and DOWN buttons together. The icon will disappear from the display, then release the buttons.

Section 9 Contents:

- *Setting and Resetting the Service Filter (Fan Run-Time) Alert.....9.2*
- *Setting and Resetting the UV Light Run-Time Alert.....9.3*

How to Set and Reset the Service Filter (Fan Run-Time) Alert

This counter keeps track of the number of hours of fan run-time whether the fan is energized in the Heating or Cooling modes, or in stand alone fan operation. The Service Filter icon will appear after the preset number of hours of fan run-time in step #7 (*below*) has been achieved. Setting this counter to zero in step #7 will prevent the Service Filter icon from ever appearing.


MODE
PROGRAM
Press the MODE button. While holding the MODE, press the PROGRAM button to enter Setup screens.
Note: Press the MODE button momentarily to move through the setup screens. Press and hold the MODE button to move backwards through the setup screens.
MODE
Press the MODE button repeatedly until this setup screen appears.
Hours the fan has run since last reset
0
Setup
6
Service Filter
Press
FAN
Reset the counter to 0 to remove the Service Filter icon from the display.
Press
MODE
0
Setup
7
Service Filter
Adjust the number of hours, in increments of 50, the fan will run before the Service Filter icon appears on the display. 0 = off.
(0 - 1950 hours)
Press
PROGRAM

Press the PROGRAM button to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

VENSTAR®

How to Set and Reset the UV Light Run-Time Alert

This counter keeps track of the number of days since the UV Light counter has been reset. The UV Light icon will appear after the number of days has been achieved, as shown in step #9 (*below*). Setting the counter to zero in Step #9 will prevent the Service UV Light icon from ever appearing.

9

MODE + PROGRAM

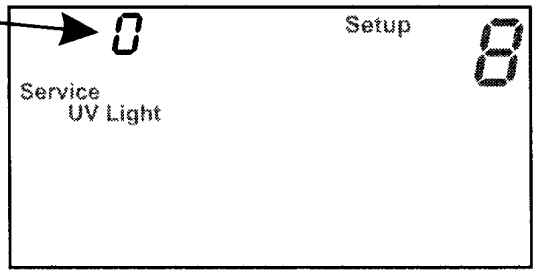
Press the MODE button. While holding the MODE, press the PROGRAM button to enter Setup screens.

Note: Press the MODE button momentarily to move through the setup screens. Press and hold the MODE button to move backwards through the setup screens.

MODE

Press the MODE button repeatedly until this setup screen appears.

Days since the UV Light icon has been reset

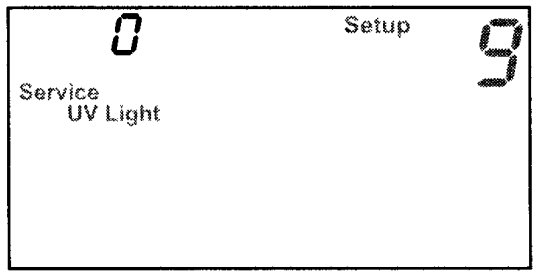


Press **FAN**

Reset the counter to 0 to remove the Service UV Light icon from the display.

MODE

Press the MODE button repeatedly until this setup screen appears.



Adjust the number of days in increments of 10 before the UV Light icon appears on the display. 0 = off.

(0 - 1990 days)

Press **PROGRAM**

Press the PROGRAM button to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

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Section 10 Contents:

- *Viewing the Heat Pump and Reversing Valve Jumper Setting.....10.2*
- *Viewing the Electric Heat Jumper Setting.....10.3*
- *Using Emergency Heat.....10.4*

Viewing the Heat Pump and Reversing Valve Jumper Settings

Steps 10 and 11 are 'Read Only' and may only be set with the jumpers on the circuit board of the thermostat (*see page 4.4 of the Installation Instructions*).

MODE
PROGRAM

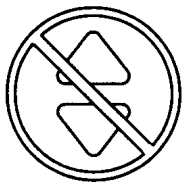
Press the MODE button. While holding the MODE, press the PROGRAM button to enter Setup screens.

MODE

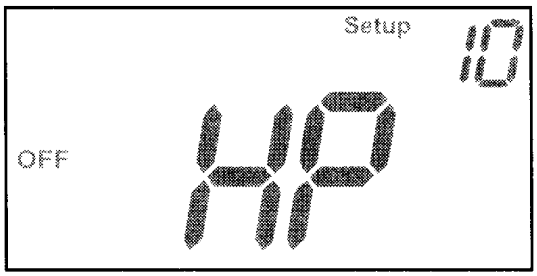
Press the MODE button repeatedly until this setup screen appears.

Note: Press the MODE button momentarily to move through the setup screens. Press and hold the MODE button to move backwards through the setup screens.

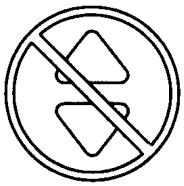
10



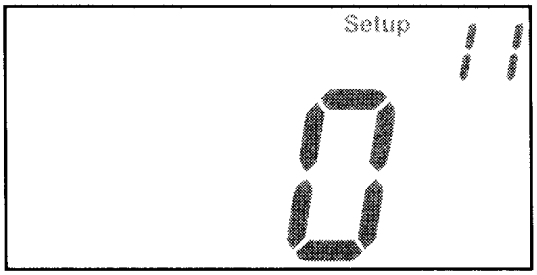
ON = Heat Pump operation
OFF = Gas Electric operation



Press
MODE



Indicates that the thermostat jumper is set for an **O** reversing valve (energize in cooling) or a **b** reversing valve (energize in heating).



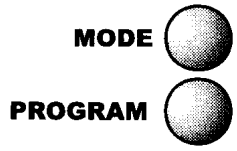
Press
PROGRAM

Press the PROGRAM button to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

Viewing the Electric Heat Jumper Setting

Placing the jumper on ELEC will cause the thermostat to turn on the fan immediately any time there is a heat demand. Since most gas furnaces control the fan, this feature should be off unless it is necessary for the thermostat to energize the fan with first stage heat.

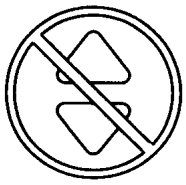
Step 12 is 'Read Only' and may only be set with the jumpers on the circuit board of the thermostat (*see page 4.3 of the Installation Instructions*).



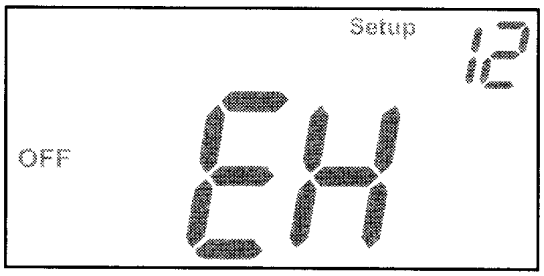
Press the MODE button. While holding the MODE, press the PROGRAM button to enter Setup screens.

Press the MODE button repeatedly until this setup screen appears.

Note: Press the MODE button momentarily to move through the setup screens. Press and hold the MODE button to move backwards through the setup screens.



ON indicates that the thermostat jumper is set for Electric Heat operation, or **OFF** for Gas/Electric or Heat Pump operation.

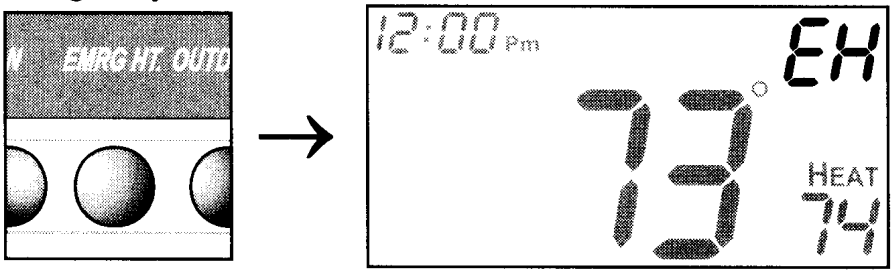


Press the PROGRAM button to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

Using Emergency Heat

ENTER EMERGENCY HEAT: Only available if you have a Heat Pump installed. To initiate the Emergency Heat feature, press the EMER HT. button. The Cool setpoint display will read 'EH' (emergency heat).

Press for
Emergency Heat



OPERATION: During Emergency Heat operation the thermostat will turn on the fan and the 2nd stage of heat when there is a demand for heat. Also during Emergency Heat the 1st stage of heating or cooling will be unavailable.

EXIT EMERGENCY HEAT: Follow the same steps as entering Emergency Heat by pressing the EMER HT. button. During Emergency Heat, only OFF and HEAT modes are available by pressing the MODE button.

Section 11 Contents:

- ***Adjusting the Heat/Cool Differential.....11.2***
- ***Adjusting the Cycles Per Hour.....11.3***
- ***Adjusting the Deadband.....11.4***

Adjusting the Heat/Cool Differential

The Heat and Cool setpoints will not be allowed to come any closer to each other than the value in this step. This minimum difference is enforced during Auto-Changeover operation.

MODE
PROGRAM

Press the MODE button. While holding the MODE, press the PROGRAM button to enter Setup screens.

MODE

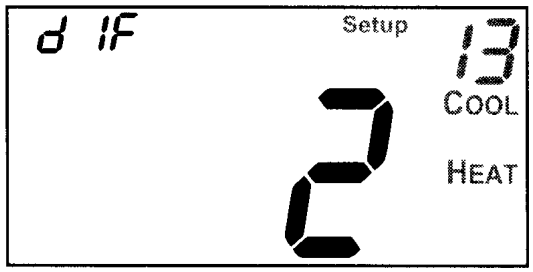
Press the MODE button repeatedly until this setup screen appears.

Note: Press the MODE button momentarily to move through the setup screens. Press and hold the MODE button to move backwards through the setup screens.

11

Adjust the minimum ***difference*** between cooling & heating setpoints.

(0°- 6°)



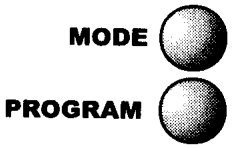
Press
PROGRAM

Press the PROGRAM button to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

Note: *To increase the spread between the heating and cooling setpoints, press the MODE button until only the heat setpoint is displayed. Adjust the desired setpoint. Wait two seconds after adjusting the set point so the thermostat can accept the change. Press the MODE button until only the cool setpoint is displayed. Adjust the desired setpoint. Wait two seconds after adjusting the set point so the thermostat can accept the change. Press the MODE button again to enter the Auto-Changeover mode where both the heat and cool setpoints are displayed.*

Adjusting the Cycles Per Hour

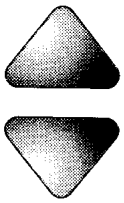
The Cycles Per Hour setting may limit the number of times per hour your HVAC unit may energize. For example, at a setting of 6 cycles per hour the HVAC unit will only be allowed to energize once every 10 minutes. The Cycles Per Hour limit may be overridden and reset by pressing the UP or DOWN buttons on the thermostat.



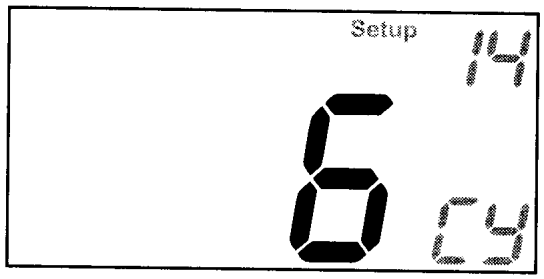
Press the MODE button. While holding the MODE, press the PROGRAM button to enter Setup screens.

Press the MODE button repeatedly until this setup screen appears.

Note: Press the MODE button momentarily to move through the setup screens. Press and hold the MODE button to move backwards through the setup screens.



Select the cycles per hour limit.
d=cycles per hour limit defeated.
d1=d + defeat 5 min. compressor lockout.
(d1, d, 2 - 6)



Press
PROGRAM

Press the PROGRAM button to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

Adjusting the Deadband

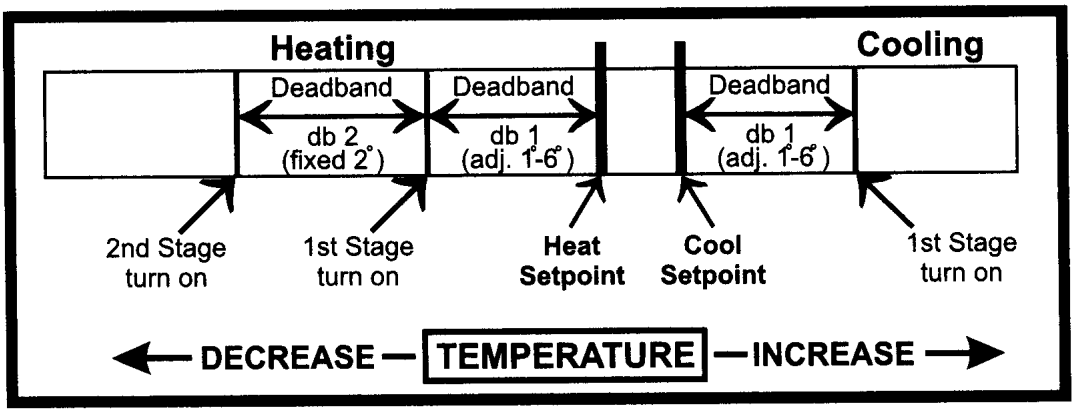
MULTI-STAGE OPERATION - Controls up to two Heat and one Cool stages.

The **2nd Stage** of heat is turned on when:

(**A**) The 1st Stage has been on for a minimum of two minutes.

And

(**B**) The temperature spread from the setpoint is equal to or greater than: *the setpoint plus the 1st stage deadband (step #15, next page), plus two degrees.*



11

Adjusting the Deadband

For more detailed information, please see the explanation on the previous page.

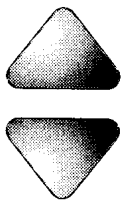
MODE
PROGRAM

Press the MODE button. While holding the MODE, press the PROGRAM button to enter Setup screens.

Note: Press the MODE button momentarily to move through the setup screens. Press and hold the MODE button to move backwards through the setup screens.

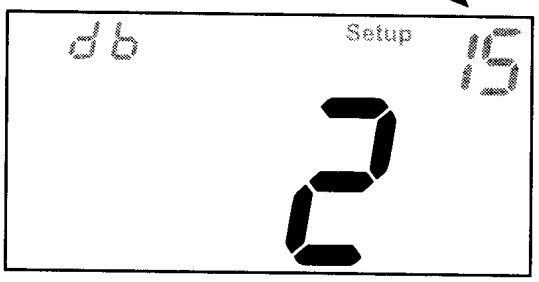
MODE

Press the MODE button repeatedly until this setup screen appears.



Adjust the deadband for the 1st stage.

(1°- 6°)



Press
PROGRAM

11

Press the PROGRAM button to leave the Setup screens. If no buttons are pressed, the display will leave the setup screens after 30 seconds.

Section 12 Contents:

- *Resetting the Thermostat to the Factory Default Settings.....12.2*
- *Calibrating the Temperature Sensor.....12.3*

Resetting the Thermostat to the Factory Default Settings (*for default values see page 14.1*)

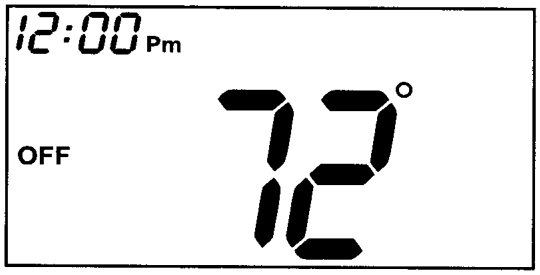
If, for any reason, you desire to return all the stored settings back to the factory default settings, follow the instructions below.

WARNING: This will reset all Time Period and Advanced Programming to the default settings. Any information entered prior to this reset may be permanently lost.

1

MODE

Place the thermostat in the OFF mode.

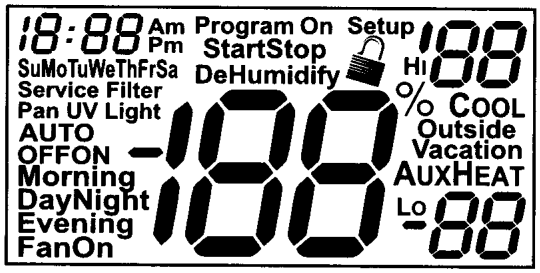


2

MODE

FAN

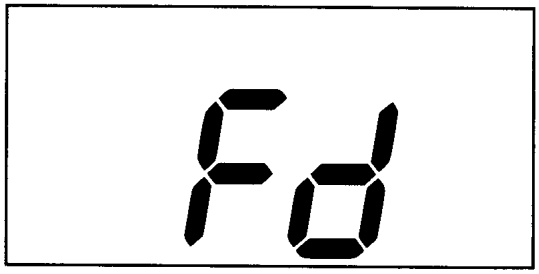
Press and hold the MODE button. While holding the MODE button, press and hold the FAN button for 5 seconds. All icons will appear on the display.



3

FAN

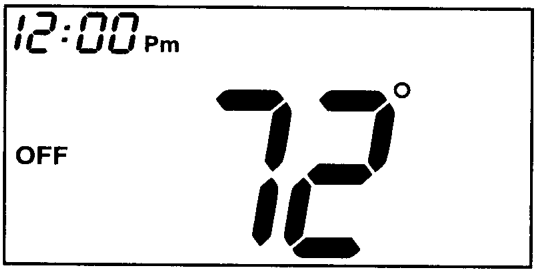
After all of the icons appear, release the MODE and FAN buttons. Then press and hold the FAN button for 5 seconds.



4

MODE

After the letters **Fd** appear on the display (Factory Default), release the FAN button. Press the MODE button **once** to return to normal operation.



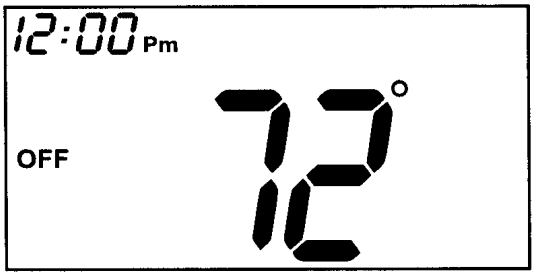
Calibrating the Temperature and Humidity Sensors

Under normal circumstances it will not be necessary to adjust the calibration of the temperature and humidity sensors. If calibration is required, please contact a trained HVAC technician to correctly perform the following procedure.

1

MODE

Place the thermostat in the OFF mode.

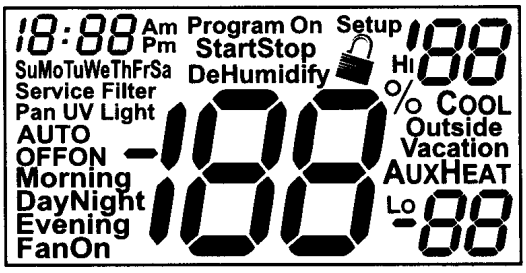


2

MODE

FAN

Press and hold the MODE button. While holding the MODE button, press and hold the FAN button for 5 seconds. All icons will appear on the display.



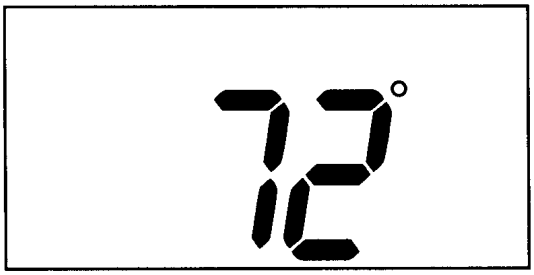
3

PRESS

TWICE

THERMOSTAT SENSOR

Press the UP and DOWN buttons at the same time twice. The thermostat temperature will be displayed and may be calibrated using the UP or DOWN buttons.

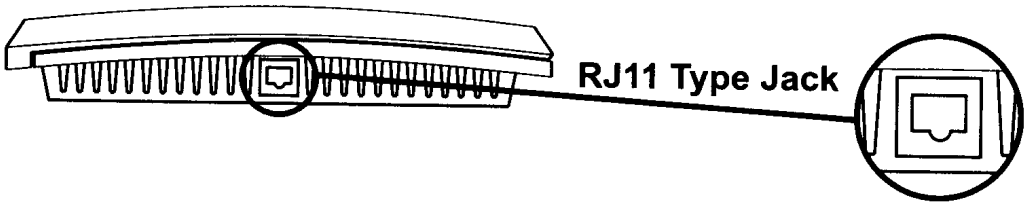


CALIBRATE

After calibration is complete, press the MODE button **once** to return to normal operation.

ACCESSORY PORT - The RJ11 Jack is used to connect the T1700 to the IR Receiver (ACC0431) for wireless communication or the EZ Programmer (ACC0432) for easy downloading or uploading of thermostat information.

The Accessory Port is located on the bottom of the thermostat.



IR RECEIVER / REMOTE CONTROL (optional accessory) - When the IR Receiver is connected, the thermostat can be controlled using an IR Remote Control. The thermostat may also interface with other wireless systems in your home. For more information see the manual for the IR Receiver (ACC0431).

EZ PROGRAMMER (optional accessory) - When the EZ Programmer is connected, the thermostat Time Period Programming and Advanced Setup Programming can be stored into the EZ Programmer's memory. This information can then be uploaded to other T1700 thermostats. For more information see the manual for the (ACC0432).

COMFORT CALL (optional accessory) - When Comfort call is connected, the thermostat's Heating and cooling functionality may be accessed and controlled through the phone. For more information see the manual for Comfort Call (ACC0433).

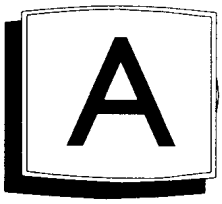
SECTION 14
Advanced Setup Table

VENSTAR®

Step#	Description	Pg#	Range	Df *
1	Programmable Thermostat	4.2	Yes/No	Yes
2	Auto-Changeover Thermostat	4.3	Yes/No	Yes
3	Fan Off Delay	7.3	0, 30, 60, 90	0
4	Thermoglow Backlight	8.2	Auto/On/ Off	Auto
5	F or C	8.2	F/C	F
6	Reset Service Filter Icon	9.2	read only	--
7	Service Filter Run Time Set	9.2	0 - 1950	0
8	Reset UV Light Icon	9.3	read only	--
9	UV Light Run-Time Set	9.3	0 - 1990	0
10	Heatpump Jumper Setting	10.2	read only	--
11	Reversing Valve Jumper Setting	10.2	read only	--
12	Electric Heat	10.3	read only	--
13	Minimum Heat/Cool Differential	11.2	0° - 6°	2°
14	Cycles Per Hour	11.3	d1, d, 2-6	6
15	Deadband/Temp. Swing	11.5	1° - 6°	2°

14

***Df = Factory Default Setting**



Accessory Port, 13.1
Alerts
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Auto
adjust temperature, 2.4, 4.8
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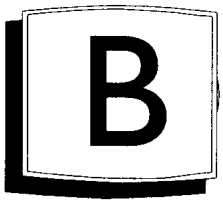
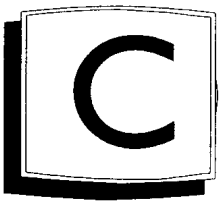
differential, see *Differential*
fan, 7.2
icon, 1.3
lockout, 4.3
mode, 2.3
AuxHeat icon, 1.4



b reversing valve, 10.2
Buttons
down, 1.2, 2.2, 2.4, 8.3,12.3
emer ht., 1.2, 10.4
fan, 1.2, 2.4, 7.2, 12.2
front panel, 1.2
mode, 1.2, 2.3, 4.2, 8.3, 12.2
outdoor, 1.2, 5.2
program, 1.2, 4.2, 6.2
set clock, 1.2, 2.2
up, 1.2, 2.2, 8.3,



C, 8.2, 14.1
Calibration, 12.3
Celsius, 8.2
Clock
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setting, 2.2, 3.2
Compressor Lockout, 11.3
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droop, see *Deadband*
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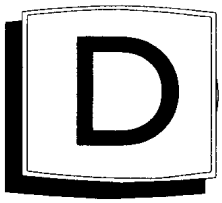
icon, 1.3
indicator, 1.2
mode, 2.3
program, see *Program*
setpoint, 2.3-2.4, 6.2-6.4
Cycles Per Hour, 11.3 14.1



Day
icon, 1.3
programming, 6.3
setting, 1.2, 2.2, 3.2
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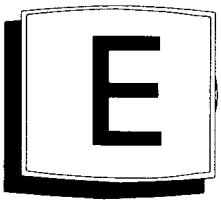
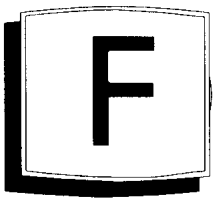
Delay
fan-off, see *Fan*
Differential
heat and cool, 11.2, 14.1
Disabled Keypad
see *Keypad Lockout*



EH, 10.4
Electric Heating
AuxHeat icon, 1.4
jumper setting, 10.3 14.1
Emergency Heat, 10.4
EZ Programmer, 13.1



F, 8.2, 14.1
Factory Defaults
caution, ii
resetting, 12.2
settings, 12.2
Fahrenheit, 8.2
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button function, *see Buttons*
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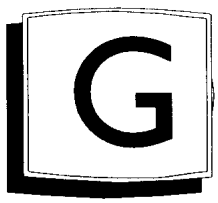
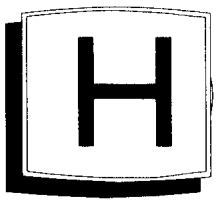
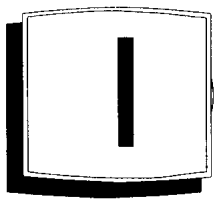
on icon, 1.4, 2.4, 7.2
run-time, 9.2
2nd stage heat, *see Emergency Heat*
Fd, 12.2
Flashing Selection, 2.2



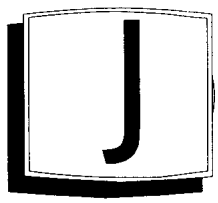
Gas Furnace
control the fan, 10.3
jumper, 10.2
Green Indicator, 1.2



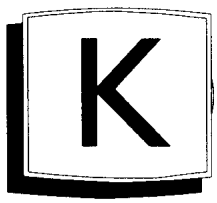
Heat
1st stage
deadband, *see Deadband*
emergency heat, 10.4
2nd stage
emergency heat, 10.4
electric strip heat, 1.4
AuxHeat icon, 1.4
deadband, *see Deadband*
droop, *see Deadband*
electric/heat pump, 10.2
icon, 1.3-1.4
indicator, 1.2
mode, 2.3
program, *see Program*
setpoint, 2.3-2.4, 6.2-6.4
Heat Pump
AuxHeat, 1.4
emergency heat, 10.4
jumper setting, 10.2



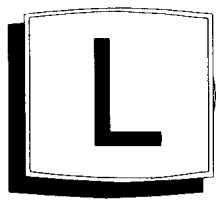
IR Receiver, 13.1



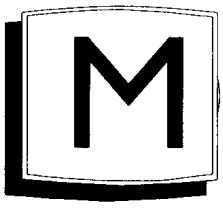
Jumpers
electric heat, 10.3
gas electric, 10.2
heat pump, 10.2, 14.1
reversing valve, 10.2, 14.1



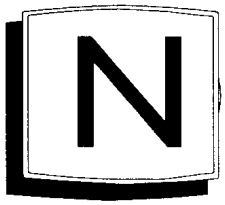
Keypad Lockout, 1.4, 8.3



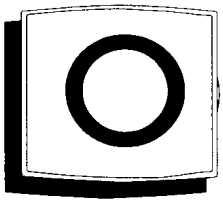
LCD, 1.2
Locked Indication
see Keypad Lockout



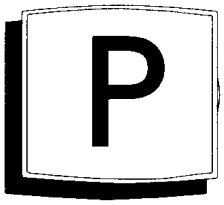
Manual
changeover, 4.3-4.4, 4.6
cool, 4.3
heat, 4.3
Multi-stage Operation, 11.4



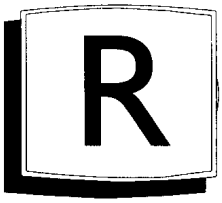
Non-Programmable Thermostat, 4.2, 4.4-4.5



O Reversing Valve, 10.2
Off Mode, 1.3, 2.3
Outdoor
button, *see Buttons*
icon, 1.3
sensor, 1.3, 5.2,
viewing temperature, 1.3, 5.2



Program
daily schedule, 6.2-6.4
mode, 1.4, 4.6-4.7
On icon, 2.3
Programmable Thermostat, 4.2, 4.6-4.7



Red Indicator, 1.2
Reset
thermostat settings, *see Factory Defaults*
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fan/filter, 9.2, 14.1
UV light, 9.3, 14.1
RS2, *see Outdoor Sensor*
Run-Time
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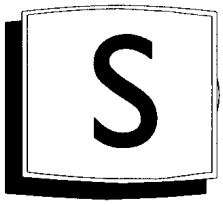
setting,
service filter, 9.2 14.1
UV light, 9.3, 14.1



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daily, *see Program*
Sensor
outdoor, *see Outdoor*
thermostat, *see Thermostat Sensor*
Service
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Set Clock, *see Clock*
Setpoint
cool, *see Cool*
heat, *see Heat*
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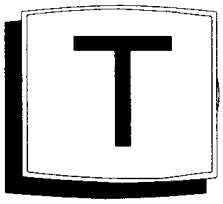
Simplest Operation, 4.2-4.3



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Time Delay,
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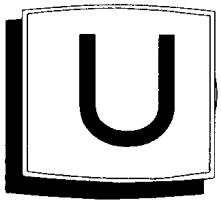

UV Light
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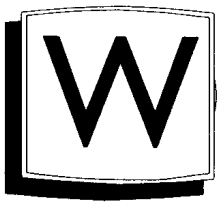
run-time, see *Run-Time*
setting, see *Run-Time*



Warranty, 16.1

SECTION 16
Warranty

VENSTAR®

One-Year Warranty - This Product is warranted to be free from defects in material and workmanship. If it appears within one year from the date of original installation, whether or not actual use begins on that date, that the product does not meet this warranty, a new or remanufactured part, at the manufacturer's sole option to replace any defective part, will be provided without charge for the part itself provided the defective part is returned to the distributor through a qualified servicing dealer.

THIS WARRANTY DOES NOT INCLUDE LABOR OR OTHER COSTS incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of either defective parts or replacement parts. Such costs may be covered by a separate warranty provided by the installer.

THIS WARRANTY APPLIES ONLY TO PRODUCTS IN THEIR ORIGINAL INSTALLATION LOCATION AND BECOMES VOID UPON REINSTALLATION.

LIMITATIONS OF WARRANTIES – ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER. ALL WORK UNDER THE TERMS OF THIS WARRANTY SHALL BE PERFORMED DURING NORMAL WORKING HOURS. ALL REPLACEMENT PARTS, WHETHER NEW OR REMANUFACTURED, ASSUME AS THEIR WARRANTY PERIOD ONLY THE REMAINING TIME PERIOD OF THIS WARRANTY.

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR:

1. Normal maintenance as outlined in the installation and servicing instructions or owner's manual, including filter cleaning and/or replacement and lubrication.
2. Damage or repairs required as a consequence of faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
3. Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
4. Damage as a result of floods, winds, fires, lightning, accidents, corrosive environments or other conditions beyond the control of the Manufacturer.
5. Parts not supplied or designated by the Manufacturer, or damages resulting from their use.
6. Manufacturer products installed outside the continental U.S.A., Alaska, Hawaii, and Canada.
7. Electricity or fuel costs or increases in electricity or fuel costs for any reason whatsoever including additional or unusual use of supplemental electric heat.
8. ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.